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# Relationship of Training and Personnel Factors to Combat Performance

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During the NTC rotation, each platoon's tactical mission performance and overall rotation performance was observed and rated by the Observer/Controller (OC) assigned to the platoon during the two week NTC rotation. The OC also provided mission performance and rotation performance ratings for the platoon leader and platoon sergeant.

*KEYWORD: SOLDIERS, PRIM TRAINING, COMBAT EFFECTIVENESS*  
Analyses were conducted to identify the Home Station variables that were associated with successful NTC unit performance. The results of these analyses included the following:

- There was agreement between the ratings of platoon performance given by the OC and that assigned by the platoons' company commanders. This supports the use of OC ratings for further research and training applications.
- The analysis results suggested that platoon combat performance is tied to the leadership effectiveness of the platoon leader and platoon sergeant during the tactical exercises. However, no relationship was observed between Home Station leadership with either combat leadership or unit combat performance.
- Soldier motivation, morale and cohesion at Home Station, and leader effectiveness at NTC, was associated with the exercise of the same leadership style during unit Home Station training -- one that emphasized positive feedback to the soldiers and coaching soldiers on how they could improve their performance.
- Units which emphasized the development of collective skills in their Home Station training tended to performed better at NTC. Conversely, a negative relationship was observed between a unit emphasis on individual training and subsequent NTC performance.
- There was an observed correlation between unit stability and unit combat performance. This was especially pronounced with regard to unit leaders, so that units with leaders who had been in their position longer performed better during the NTC exercises.

# THE RELATIONSHIP OF UNIT TRAINING AND PERSONNEL FACTORS TO COMBAT PERFORMANCE

## EXECUTIVE SUMMARY

### Requirement:

To support large-scale research on the Home Station determinants of unit combat performance through preliminary analysis of the data collected from the initial units considered in this research. This analysis is intended to uncover promising directions and trends in the linkage of unit personnel and training factors with simulated combat performance at the National Training Center (NTC). These early findings will then serve to guide the more extensive data analysis to occur later in this research.

### Procedure:

Questionnaire and interview data were collected from a sample of 31 platoons in the same brigade shortly before their rotation to the NTC for two weeks of intensive training exercises under realistic combat conditions. These data concentrated on unit factors and issues pertaining to unit leadership, cohesion and morale, unit training, and particular personnel characteristics of the unit (e.g., unit turnover).

During the NTC rotation, each platoon's performance was observed and rated during six force-on-force missions by the Observer/Controller (OC) assigned to the platoon. The OC also provided mission performance ratings for the platoon leader and platoon sergeant and rating of total performance across the entire rotation for the platoon, the platoon leader, and the platoon sergeant.

A second Home Station data collection was conducted on a sample of the units immediately after their return from NTC. This data collection gathered retrospective data on the units' NTC performance from the unit members and leaders as well as data on the determinants and effects of that performance.

Analyses were then conducted to identify the Home Station variables that were associated with successful NTC unit performance.

### Findings:

Results of analyses conducted on the collected data included the following:

- There was agreement between the ratings of platoon performance given by the OC and that assigned by the platoons' company commanders. This supports the use of OC ratings for further research and training applications.
- The findings suggested that platoons' combat mission performance is tied to the leadership effectiveness of the platoon leader and platoon sergeant during the exercise. However, no relationship was observed between Home Station leadership with either combat leadership or unit combat performance.

- Soldier motivation, morale and cohesion at Home Station, and leader effectiveness at NTC, was associated with the exercise of the same leadership style during unit Home Station training — one that emphasized positive feedback to the soldiers and coaching soldiers on how they could improve their performance.
- Units which emphasized the development of collective skills in their Home Station training tended to performed better at NTC. Conversely, a negative relationship was observed between a unit emphasis on individual training and subsequent NTC performance.
- There was an observed correlation between unit stability and unit combat performance. This was especially pronounced with regard to unit leaders, so that units with leaders who had been in their position longer performed better during the NTC exercises.

Utilization of Findings:

The results of this preliminary effort have identified several areas that are promising research areas and of direct importance to the issues the Army faces in personnel and training management. These will serve as focal areas for research in the continuing ARI research program in this area.

# THE RELATIONSHIP OF UNIT TRAINING AND PERSONNEL FACTORS WITH COMBAT PERFORMANCE

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Each day leaders throughout the Army must make decisions regarding the manpower, personnel, and training (MPT) issues effecting their commands. These decisions are as varied as they are plentiful, ranging from Army-wide MPT policy formulation and resource allocations to the day-to-day training and work assignments within small units. However different these decisions may be, they are all directed at a single goal — maximizing the combat readiness of Army units — and it is by the success with which they advance this goal that alternative courses of action must be evaluated.

In general terms, there is little doubt regarding what desirable MPT factors are. More training is better than less; higher ability soldiers are preferable over those who are less capable. However, the decisions that Army leaders face on a daily basis are rarely so clean-cut. More typically, they concern complex trade-offs among many interacting factors. For decisions such as these, information is needed on not just what is beneficial, but how that benefit compares to that of other factors and courses of action. Therefore, to guide such decisions and maximize conditions supporting unit combat readiness, information is required on how MPT factors operating in the Army unit environment contribute to the unit's capability for successful combat performance.

This report describes the initial efforts and results of a project undertaken by the Army Research Institute for the Behavioral and Social Sciences (ARI) to identify how MPT factors influence unit combat performance. To do this, the project (titled the "Determinants of Combat Performance" project or, more simply, the Determinants project) capitalizes on the rich data available on unit performance during realistically simulated combat exercises at the National Training Center (NTC). These data, and measures of unit effectiveness derived from it, provide what has been lacking up to now to support research in this area — a credible criterion of unit performance. By collecting extensive data on a unit's personnel and training during the months before its rotation to NTC and then comparing those measures to the unit's subsequent NTC performance, the project seeks to identify those personnel and training factors, processes, and procedures that characterize successful combat units. Specifically, this project is examining how unit NTC performance is related to Home Station factors in each of four domains — unit training and training management, unit leadership, cohesion, and personnel characteristics.

The focus of this report is the data collected in the first rotation of two battalions considered in this project. This rotation was one conducted principally as a Special Focus rotation on small unit leadership in support of another ongoing research program being conducted by ARI for the Center for Army Leadership (Ratchford, D.L., Twohig & Zimmerman, 1986; Twohig & Tremble, 1987; Twohig & Tremble, 1988). However, for the purposes of the Determinants project, this rotation also gave the opportunity to do two things:

- To field test the data collection approaches and instruments which will be used in the Determinants project
- To conduct initial, exploratory analyses assessing the potential of personnel and training variables, as measured in the project, to account for differences in unit combat performance.

The results from this rotation relating to the first of these objectives are reported separately (Advanced Technology, 1988). The emphasis of this report is on the results of the exploratory analyses linking unit MPT factors to simulated combat performance. Coming early in the Determinants project, the results from this initial effort will serve

first of all to identify the potential of the MPT factors considered in the Determinants project to account for differences in unit combat performance. Although the scope of the project is considerable, it will not be possible to exhaustively sample all training, leadership, cohesion and personnel factors possibly related to unit combat performance. It is therefore useful at this early stage of the project to confirm that the variables included in the project's design and the measures developed for them have potential as predictors of unit performance. Beyond this, where predictive relationships are found between Home Station MPT factors and unit NTC performance, the nature and patterns of these relationships can suggest hypotheses to be tested and more fully explored once the more extensive data is ultimately included in the Determinants project data base.

## METHOD

### Overview

The data for this effort was collected from two battalions from a FORSCOM heavy infantry division who participated in an NTC Special Focus rotation on small unit leadership. These data were collected in the course of three phases:

- **Pre-Rotation Data Collection** — This major data collection was conducted shortly before the units deployed to the NTC with the purpose of measuring the units on Home Station characteristics thought to be important contributors to tactical performance. For the most part, these measures were included in questionnaires and interviews administered to unit personnel.
- **NTC Data Collection** — To provide the principal measures of unit success at the NTC, ratings of platoon, platoon sergeant, and platoon leader performance were collected from Observer/Controllers (OCs) at the completion of each of the tactical missions undertaken across the 14 days of exercises. Summary measures of this performance were collected from the same individuals at the completion of the rotation.
- **Post Rotation Data Collection** — A final wave of data collection was conducted two weeks after the units returned from NTC. This data collection had two purposes: (1) to collect retrospective data on the units' performance at NTC, as seen by the units' commanders; and (2) to obtain data from unit leaders on how important certain unit factors (e.g., leadership) were in supporting unit NTC performance.

### Sample

The sample consisted of two combat battalions from the same brigade which participated in an NTC Special Focus rotation on leadership. Of these, one battalion was an Armor battalion while the other was Mechanized Infantry.

In the Pre-Rotation data collection, data was collected by teams of ARI and Advanced Technology, Inc. (ATI) researchers in all of the line companies of the participating battalions as well as the scout and mortar platoons in the HHC. This yielded a survey sample of 340 service members, 198 NCOs, and 40 officers drawn from 31 platoons within 11 companies.

During the NTC exercises, data was collected by ARI researchers on the same 31 platoons from OCs assigned to the sample platoons for the duration of the exercises. One OC was assigned to each of the platoons.

A restricted subsample of participants was interviewed and surveyed by ARI and ATI staff members during the Post-Rotation data collection. This provided responses from 35 service members, 14 squad/crew leaders, 8 platoon sergeants, 7 platoon leaders, 6 company commanders, and the 2 battalion commanders.

The Ns for each of this effort's measures are indicated in the technical appendices contained in Volume 2 of this report.

### Measures

#### Unit NTC Performance

Two types of unit performance measures were used in this research. The first were developed from ratings of platoon performance provided by NTC OCs. At the completion of each mission performed by a sample platoon, the OC assigned to that unit completed a short rating form (See Appendix B-1) concerning the quality of platoon performance displayed during the mission. This rating was accomplished using a four-point rating, ranging from "Poor" to "Excellent". We will refer to this measure as the Platoon's "*Mission Performance Rating*" in this paper. At the end of the rotation, these ratings were again accomplished, though at this time with regard to the overall rotation performance of the platoon across the entire rotation. For purposes of explication, we will refer to these final ratings as the "*Overall Performance Ratings*" for the platoon, to contrast them from the Mission Performance Ratings accomplished throughout the rotation.

The second type of unit performance measure used in this research was collected during the post-rotation data collection from the company commanders above the participating platoons. Company commanders were asked to rate the performance of the platoons which served under them at NTC using a five-point rating scale ranging from "Far Below Standard" to "Far Above Standard". They provided these ratings separately for the platoon's performance at the start of the rotation and at the rotation's end. The same rating procedure was also used to solicit company performance data from battalion commanders. In this paper, we will refer to the measures of platoon performance so obtained as the platoon's "*Commander's Performance Rating*".

#### Leadership Measures

Measures of four leadership constructs were used in this research:

- Home Station leadership effectiveness
- NTC combat leadership performance
- Criticality of leadership competencies to combat performance
- Leadership style displayed during Home Station training.

Each of these employed a different measurement approach.

#### Home Station Leadership Effectiveness

To evaluate the relationship between Home Station leadership and unit and leader performance at NTC, measures were required on the Home Station leadership effectiveness of the platoon leaders and platoon sergeants in the sample platoons. These measures were obtained through a six-item scale contained on a larger questionnaire

(See Appendix A) which also measured other constructs and issues beyond the scope of this paper<sup>1</sup>.

The six items asked the respondent to use a five-point scale to agree or disagree to six statements about the individual being rated. These included five general areas of leadership competence (e.g., "Makes his soldiers want to do a good job") and a measures of overall leader effectiveness. These items are presented as Items 101 - 106 in Appendix A.

Platoon leaders and platoon sergeants were rated by their service members, squad leaders and company commanders. Raters' responses to the six items were averaged into a leader effectiveness scale score. These scale scores were then aggregated into a mean service member and squad leader rating for each platoon leader and platoon sergeant. These aggregate scores were then combined through averaging to produce a single Subordinate Leader Effectiveness rating for each platoon leader and platoon sergeant. The company commanders' scale scores were retained as a Superior Leader Effectiveness rating for each rated individual.

#### Combat Leadership Performance

The OC assigned to each platoon during the NTC rotation rated the leadership performance of the platoon leader and the platoon sergeant after each force-on-force mission and assigned them an overall rotation performance rating at the rotation's end. This rating was accomplished using the same four-point rating scale ("Poor", "Only Fair", "Good", and "Excellent") used by the OC to rate platoon performance.

As with the OC ratings of platoon performance, we will refer to the averaged mission performance rating as the platoon leader's or platoon sergeant's "Mission Performance" and the rating given at the end of the rotation as the "Overall Performance Rating".

Due to the widely dispersed area over which the tactical missions were conducted, it was not always possible for the OC to observe the performance of both the platoon leader and the platoon sergeant during a mission. Under these circumstances, the OC did not attempt to rate the individual he had not observed. This resulted in a sharply reduced number of observations for the platoon leader and platoon sergeant mission performance scores. The Ns for the mission performance ratings for the platoon leader and platoon sergeant were reduced to 20 and 15, respectively. The overall rotation performance score was available for all 27 platoon leaders and platoon sergeants.

#### Leadership Competency Criticality

An approach used in this effort to examine the relative importance of different aspects of leadership to combat performance was to obtain direct ratings of the combat criticality of specified leadership competencies .

<sup>1</sup> Appendix A contains the version of the questionnaire administered to service members in the sample platoons. For the measures considered in this paper, this version contained the same items employed in the other versions, with some slight wording changes

In the course of the Post-Rotation data collection, interviews were conducted with members and leaders of the returning units. Part of this interview consisted of a "card sorting" task in which the individuals being interviewed were asked to indicate the relative importance of different leadership competencies to unit performance during combat. The rating scheme used was similar to that employed for the Home Station Leadership Effectiveness ratings described above. That is, the importance of platoon leader competencies was rated by service members, squad leaders and company commanders while those of the platoon sergeant were rated by the service members and squad leaders. For the purposes of analysis, the ratings provided by the squad leaders and service members were combined into a single subordinate rating of each platoon sergeant leadership competency.

Importance ratings were obtained for eleven leadership components (or leadership "competencies") which had been identified by the Center for Army Leadership (CAL) in their developing doctrine as essential elements of Army leadership. These competencies are displayed in Table 1 along with the associated performance standards used to define each competency to the raters.

The leadership competencies were rated by assigning each to one of three categories according to its perceived importance to combat performance. These categories were labeled "Critical", "Important", and "Less Important". In their instructions, raters were asked to assign four competencies to the Critical category, three to the Important category, and the remaining four to the category labeled Less Important.

From these ratings, a measure of competency importance was developed by computing the percentage of times that a given competency was assigned to the Critical category by raters of each position. In the case of the platoon sergeant competencies, this measure was computed separately for Subordinate and Superior raters.

#### Home Station Leadership Style

In addition to measures of the general leadership effectiveness of platoon leaders and platoon sergeants at Home Station, data was also collected on their characteristic style of their interaction with the soldiers in their platoon. To do this, items were included in the Pre-Rotation questionnaire administered to service members concerning the type of feedback they received from their platoon leader and their platoon sergeant during training. Specifically, they were asked to indicate on a five point scale of ("Almost Never" to "Almost Always") how often the platoon leader or platoon sergeant:

- Told them specifically what they were doing right
- Told them specifically what they were doing wrong
- Told them specifically how to improve
- Gave them the opportunity to actually correct their mistakes and improve

This sequence of four items was asked first with regard to individual training and then repeated for feedback during collective training (See Items 64 - 71 in Appendix A).

<b>LEADERSHIP COMPETENCY</b>	<b>STANDARDS</b>
Communication	Communicates with Subordinates Communicates with Superiors Communicates with Other Units
Decision Making	Decisive Consults, but makes independent decisions Good problem solving approaches
Flexible	Adjusts to the situation Deals well with the unexpected
Initiative	Acts without direct orders to accomplish mission intent Requests that supervisors reconsider approach based on new information
Motivates Others	Instills desire Gets subordinates to do needed tasks, even when they are tired
Planning	Quality of plans Timeliness of plans Consults with subordinates
Soldier/Team Development	Builds teamwork Takes care of soldier needs Maintains discipline
Supervision	Specifies tasks clearly to subordinates Checks on performance of tasks Makes sure errors are corrected
Teach/Counsel	Provides helpful feedback Uses rehearsals Delegates to provide experience
Technical/Tactical Proficiency	Knows tactics, METT-T, weapons systems, maneuver equipment
Trust in Subordinates	Allows subordinates to plan own areas of responsibility

**Table 1. Leadership Competencies and Standards**

The responses given about each platoon leader or platoon sergeant by his service members were averaged for each item separately into an aggregated item score.

### Home Station Training

In the Pre-Rotation Questionnaire administered to company commanders, two items were asked with the purpose of characterizing the type of training the sample platoons engaged in during their preparation for NTC. The first item asked about the quality of training in each of six areas, with the company commander being asked to rate the training on a five-point scale ranging from "Very Poor" to "Very Good". The training areas that were rated concerned training conducted at different levels of individual and collective skills. These included:

- Individual Training
- Squad/Crew/Section Training
- Platoon Training
- Company/Team Training
- Battalion Training
- Task Force Training<sup>2</sup>

A second item asked the company commander to rate on a five-point scale ("Far Too Little" - "Far Too Much") the amount of training conducted during the preceding six months in five mission areas at the platoon and company level. These missions were:

- Movement to Contact
- Hasty Attack
- Deliberate Attack (Day)
- Deliberate Attack (Night)
- Defense

### Soldier Attitudes

Items were included in the Pre-Rotation Questionnaire administered to service members to measure the level of cohesion, motivation, and morale among the soldiers in the unit. Soldiers' scale scores in each of these areas were aggregated to produce platoon measures in each of these areas.

### Cohesion

The measure of unit cohesion used in the present effort was the Platoon Cohesion Index (PCI) developed by ARI (Siebold, 1987). This twenty item instrument is broken

<sup>2</sup> Other information indicated that Task Force level training occurred with such infrequency the the ratings of training quality would not be meaningful

into subscales measuring six elements of cohesion or forms of soldier bonding. These are defined in terms whether the bonding is *affective* (based in the social or psychological environment and includes feelings, emotions, and values) or *instrumental* (based in the objective, task centered environment and includes skills, competencies, and mission focus). Each of these two types of bonding is further broken down according to whether it refers to bonding among soldiers (*Horizontal Bonding*), bonding of the soldier to his leader (*Vertical Bonding*), or bonding of the soldier to the organization of which he is a member (*Organizational Bonding*). Thus the six PCI subscales were:

- Horizontal Affective Cohesion
- Horizontal Instrumental Cohesion
- Vertical Affective Cohesion
- Vertical Instrumental Cohesion
- Organizational Affective Cohesion
- Organizational Instrumental Cohesion

The PCI items are presented as Items 20 - 39 in Appendix A.

#### Soldier Motivation

This construct was measured through two items included on the Pre-Rotation Questionnaire. These items have a long history of demonstrated value in measuring this construct as items on the Army's General Organizational Questionnaire (GOQ), the Army's modification of the Michigan Survey of Organizations. These items (Items 53 and 54 in Appendix A) are:

- "When performing my job, I work as hard as I possibly can to get the job done"
- "I work towards making my platoon look good"

Soldiers indicated their level of agreement or disagreement to these statements on a five-point scale. These responses were combined into a Motivation scale score which was aggregated to a platoon-level score.

#### Morale

Morale was assessed in much the same way as Soldier Motivation. Two items, also drawn from the GOQ, were included in the Pre-Rotation Questionnaire to measure this construct. These items (Items 49 and 51 in Appendix A) were:

- "My morale is high"
- "The morale in my unit is high"

Soldiers' responses to these two items were combined and then aggregate to platoon-level scores.

#### Personnel Characteristics

The initial section of the Pre-Rotation Questionnaire consisted of items asking about the respondent's background. Most germane to the interests of this paper were items

asking how long the individual had been in his platoon and company (Items 17 and 18 in Appendix A); how long he had been in his current grade (Item 15 in Appendix A); his level of experience with NTC (Items 13 and 14 in Appendix A); and the score on his most recent Physical Readiness Test (Item 8 in Appendix A). When aggregated to the platoon level, the responses to these items served as measures of the units' personnel characteristics.

## FINDINGS

The analyses conducted on the collected data were exploratory in nature, intended to guide the development of research hypotheses rather than definitively testing them. This was consistent with the goal of this initial effort — to identify areas for more rigorous analysis in the larger Determinants project. This approach was further consistent with and required by the limited nature of the data set available for analysis. Because the sample consisted of only 31 platoons drawn from a single brigade and observed over a single period in time, the rigor and generalizability of possible analyses allowed only an exploratory level of analysis.

The principal analyses conducted on the collected data consisted of platoon-level correlations computed:

- **Among the measures of unit NTC performance** — These correlations were examined to investigate how reliably unit performance can be assessed through ratings by observers and participants in NTC exercises
- **Among the measures of unit Home Station factors** — Examination of these correlations was undertaken to shed light on how Home Station factors foster unit preparedness for NTC. Since the principal thrust of the studied rotation was on small unit leadership, a consideration of the relationship of unit leadership to other factors important to unit tactical performance (e.g., soldier cohesion and motivation) was the main focus of these analyses.
- **Between measures of Home Station factors and of NTC performance** — Of greatest importance in examining this effort's results was identifying those Home Station measures which appeared to offer promise as predictors of unit performance. Therefore, the intercorrelations between the set of Home Station measures and the measures of NTC performance were computed and examined to uncover patterns of association between these two sets of measures.

These three sets of correlations are presented in their entirety as Appendices B-1, B-2, and B-3, respectively, in Volume 2 of this report. Examination of these and associated results revealed several patterns of results of particular consequence to the Determinants effort and, more generally, to the identification of Home Station determinants of unit tactical performance. These results are described in the remaining sections of this chapter, organized by four of the major research areas of interest to this project:

- The measurement of unit performance
- Unit leadership and cohesion
- Unit training
- Unit personnel characteristics.

While several of the findings considered in these sections point to a strong relationship among these sets of variables, particularly between some Home Station factors and unit performance, the limited sample size upon which they are based must be kept in mind in weighing their implications. However strong the levels of association may appear at

this point, it will require confirmation with the larger Determinants data set before serious conclusions can be drawn in these areas. Nonetheless, the results described in the following sections highlight suggest that there exist several very promising areas for further research and analysis in the Determinants project.

### The Measurement of NTC Performance

As described earlier, the primary measure of unit NTC performance was the ratings of mission and rotation performance given to each platoon by the OC assigned to it. Although these OCs were in an excellent position to observe the platoon's operations and had the experience and training needed to develop informed judgements on the unit's performance, it remains to be determined whether these assessments have the necessary psychometric quality to serve as research measures.

Ideally it would be desirable if the platoon's performance were to have been observed by more than one OC. In such a case the assessments of the OCs who observed the same platoon's performance could be compared to see if their assessments agreed. However, since only one OC was available to observe each platoon during the force-on-force missions, such an approach was not possible in this effort. Instead, the OC ratings were compared to those provided by the platoons' company commanders.

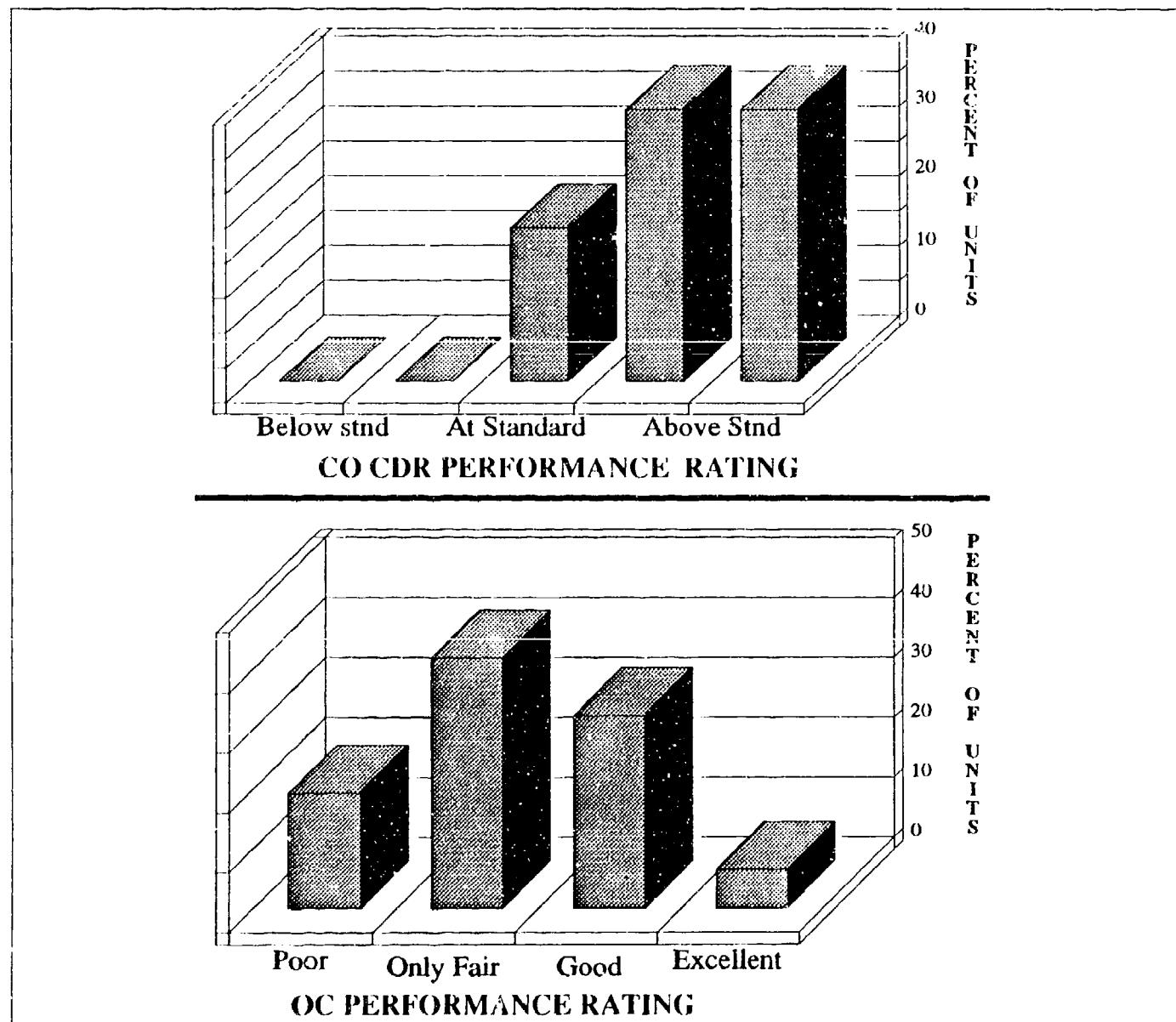
Comparing the OC's estimates of platoon performance to those of the company commanders can be expected to provide a conservative estimate of the reliability of these measures. To be sure, both groups have the opportunity to observe the platoons' performance during the same missions at the NTC. However, it can be expected that there should be some inherent differences in the performance ratings they give to the platoons because of their different interactions with the platoons during the rotation and due to differing perspectives in evaluating the units' performance,. Nonetheless, to the degree that there is a common understanding in the Army of the characteristics of successful combat performance, the similarities in these raters's performance estimates should overwhelm the differences in their perspectives on the units. We would therefore expect that the OC ratings of platoon performance would be consistent with, but not identical to, the performance estimates provided by the company commanders.

To examine this, a correlation was computed between the OC and company commanders' estimates of platoon performance across the 13 platoons in the sample for which both scores were available<sup>1</sup>. In computing this correlation, the estimate which the company commanders gave of the platoons' performance at the end of the rotation was used as the best estimate of their level of performance during the rotation. The company commander's rating correlated with the mean mission performance rating given by the OC at a value of .48 ( $p.<.05$ )<sup>2</sup>, indicating agreement in the two estimates of platoon tactical performance. On the other hand, the correlation of the company commander's rating with the OC's rating of the platoon's overall rotation performance was nonsignificant ( $r$

- 
- 1 Since only a sample of the company commanders in the rotating battalions were interviewed in the Post-Rotation data collection, commanders' ratings of platoon NTC performance was available for only about half of the platoons in the sample
  - 2 In light of the extensive research literatures linking training and leadership to performance, one-tailed tests of significance were applied on the correlations in this research.

$\alpha = .26$ ,  $p = .19$ ), suggesting that the agreement between the company commander's and the OC's rating is established on how well the platoon performed during the force-on-force exercises. When the OC rates how well the platoon performed across the entire rotation (i.e., considers performance beyond the force-on-force engagements), his agreement with the company commander's estimate disappears.

While the OC and company commander's ratings were consistent, they were by no means identical. Figure 1 displays the distributions of these measures. As indicated in this figure, there is a striking difference in the level of performance reflected in the two ratings with commanders seeing a higher level of performance, overall, than the OCs.



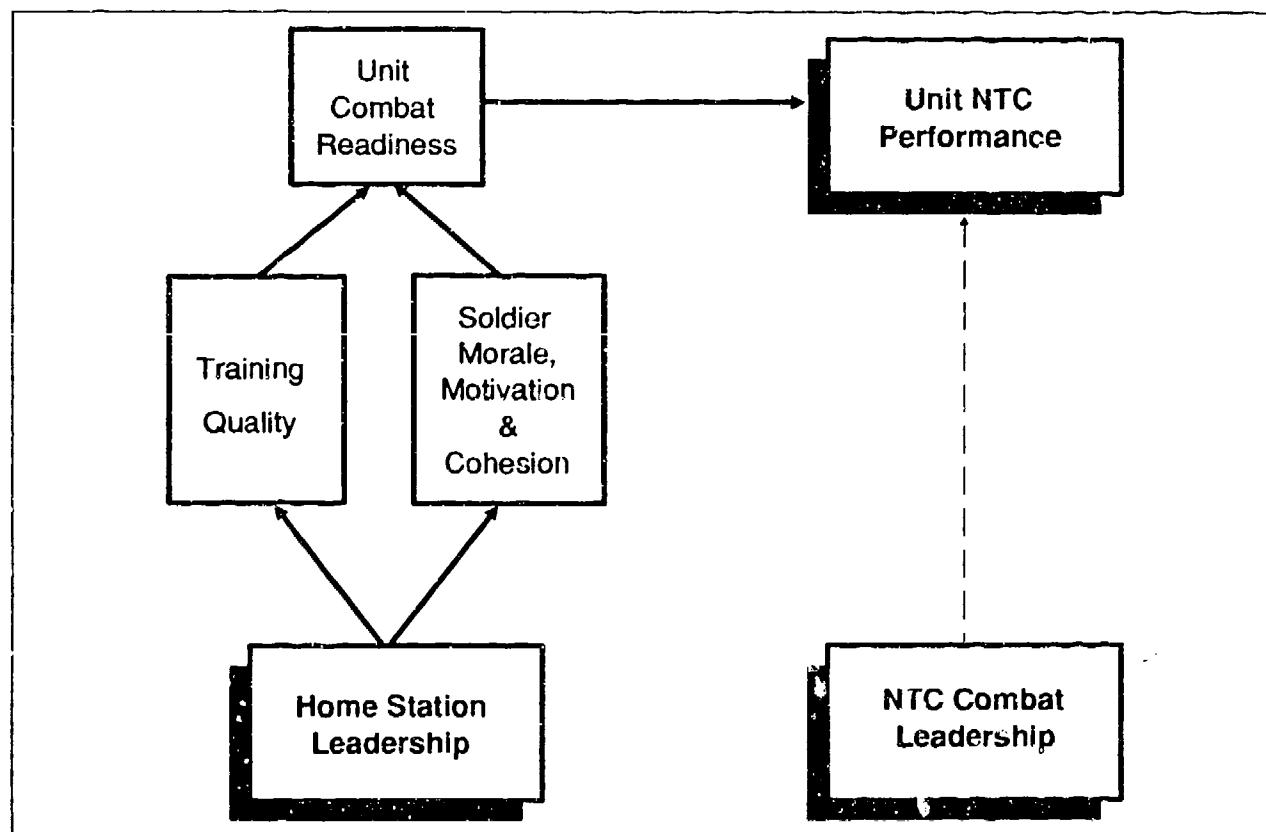
**Figure 1. Distributions of Commander Ratings and Observer/Controller Ratings of Platoon NTC Performance.**

## Unit Leadership

In line with the focus of the rotation, a line of analysis was undertaken to assess the relationship between platoon leadership and tactical performance. Conceptually, platoon leadership influences platoon performance in at least two ways.

- At Home Station, higher quality leadership contributes to the unit's state of readiness and to its preparation for the NTC rotation. As a result, the unit arrives at the NTC with a higher performance potential (i.e., with better trained soldiers, higher morale and cohesion, etc.) and as a result is more likely to perform well. This indirect linkage between leadership and unit NTC performance is displayed in solid-line arrows in Figure 2.
- During the tactical exercises themselves, the exercise of superior leadership will directly contribute to the unit's performance. This direct linkage between leadership and unit NTC performance is shown as the broken-line arrow between NTC combat leadership and unit performance in Figure 2.

Thus, it can be expected that platoon leadership, as exercised by the platoon sergeant (PS) and platoon leader (PL) at both the Home Station and NTC will be associated with platoon NTC performance. Therefore, correlations assessing the relationship of Home Station and NTC leadership to unit tactical performance were examined to evaluate the strength of these two leadership/performance linkages.



**Figure 2. Possible linkages between leadership and unit NTC performance.**

	Platoon Mission	Platoon Overall	PL Mission	PL Overall	PS Mission	PS Overall
Platoon Mission Performance	1.00					
Platoon Overall Performance	.68***	1.00				
PL Mission Performance	.71***	.54***	1.00			
PL Overall Performance	.75***	.87***	.80***	1.00		
PS Mission Performance	.74***	.49***	.98***	.87***	1.00	
PS Overall Performance	.67***	.78***	.62***	.88***	.69***	1.00

NOTE: Ns range between 31 (Unit Overall Rating) to 15 (PS Mission Performance)

\*\*\*  $p < .01$

**Table 2. Correlations Among Measures of NTC Unit and Leader Performance.**

#### NTC Combat Leadership and Unit Tactical Performance

Table 2 displays the correlations among the measures of platoon performance and leadership, both measured by OC ratings. It should be noted in reviewing this table that, as noted previously, OCs sometimes had difficulty in observing both the platoon leader and platoon sergeant during the tactical mission. Therefore the Ns underlying these correlations vary with substantially less data available for the leader mission performance measures (platoon leader N=20; platoon sergeant N=15) than for the overall ratings of their rotation performance (N=27). As indicated in the table, there is a strong and consistent relationship among the measures of performance and both PL and PS leadership. However, the very size and consistency of the correlations in this table raises the question of whether these relationships might be only a reflection of a "halo effect" in the OC ratings, rather than an indication of an association between leadership and unit performance.

OC Ratings of:	Correlation with Co Cdr Rating of Platoon NTC Performance
PL Mission Performance	.84***
PL Overall Performance	.68**
PS Mission Performance	.89***
PS Overall Performance	.53*

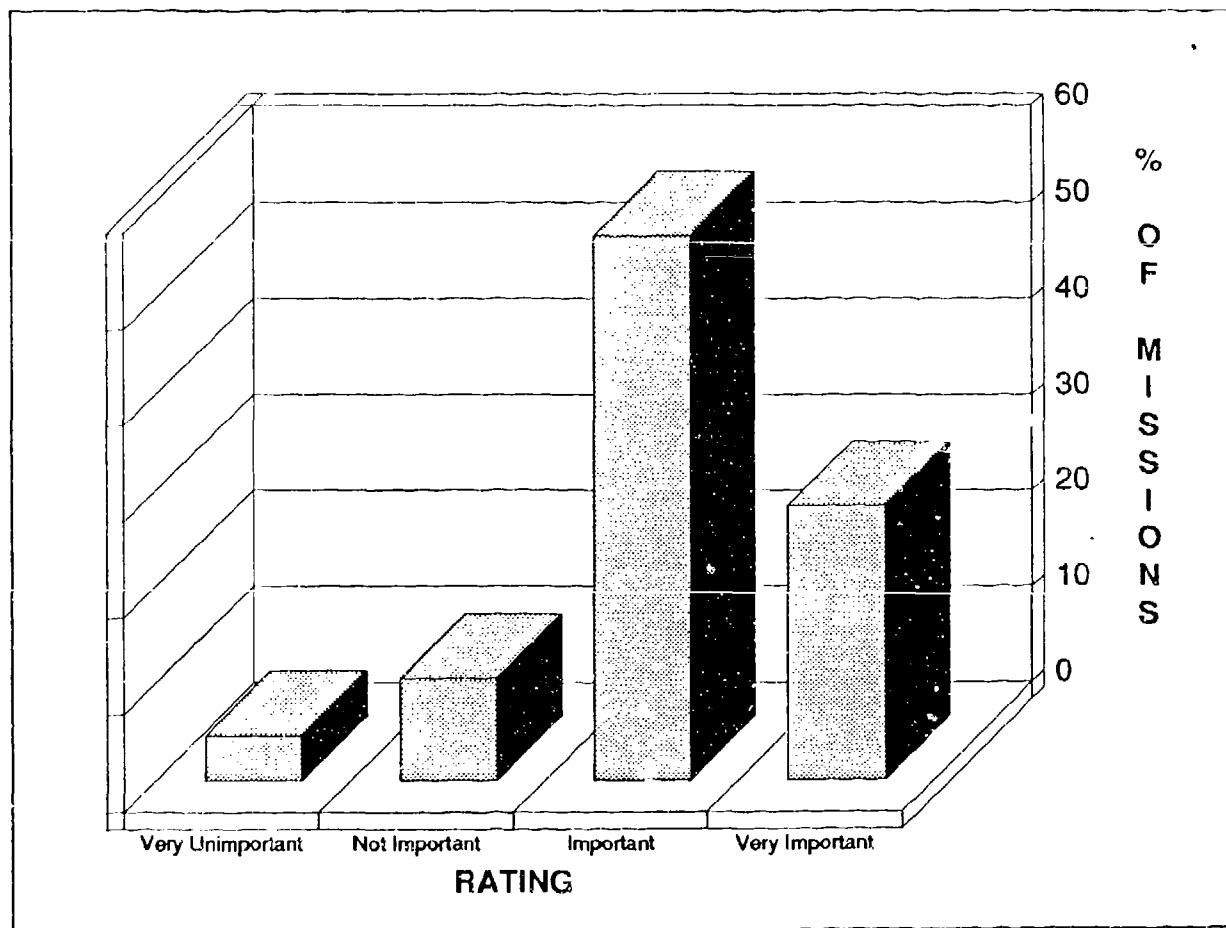
1: N = 14

\*  $p < .05$   
\*\*  $p < .01$   
\*\*\*  $p < .001$

**Table 3. Correlations Between OC Ratings of Leader Performance and Commander Ratings of Unit NTC Performance.**

To assess this possibility, the correlations between the OC ratings of PL and PS effectiveness at NTC and the company commander ratings of platoon NTC performance were examined. Since the measures of platoon performance and those of leader performance are based on data from different raters, the correlations between the measures can not be inflated by a halo effect. These correlations (See Table 3) likewise show a strong relationship between platoon leadership and performance, supporting the interpretation that a sizable relationship exists between the exercise of combat leadership and battle outcome.

A third line of analysis likewise explored the combat leadership/tactical performance relationship. After each mission, the OCs rated how important platoon leadership was in determining the platoon's performance during the mission. In aggregated form, the scores provide a direct rating of the importance of leadership to combat performance. The distribution of these scores, displayed in Figure 3, shows that by and large, OCs attribute considerable importance to leadership in determining combat outcomes. This rating are especially noteworthy because they come from individuals who observe and



**Figure 3. OC Ratings of the Importance of Leadership to Platoon Mission Performance**

analyze tactical engagements on almost a daily basis and have the opportunity to observe many different units operate in realistic combat conditions. The importance rating they

give to leadership is therefore one based on a foundation of observation and experience.

### Home Station Leadership and NTC Leadership

If, as the earlier results suggest, combat leadership is strongly associated with unit performance at NTC, the question remains as to whether this is a direct or an indirect relationship. It is possible that the results described in the previous section are not due to a direct combat leadership/unit performance association, but rather are an indirect reflection of a relationship between *Home Station* leadership and unit performance.

If good leaders at Home Station are also good leaders at NTC, then the measures of Home Station leadership and NTC leadership will be correlated and it will be impossible in this data set to separate their independent effects on unit NTC performance. Under these conditions, it would be possible that the correlations observed in the previous section between NTC leadership and unit performance are actually reflecting the contribution of Home Station leadership to unit NTC performance. If, on the other hand, it can be shown that good Home Station leaders do not necessarily display good leadership at NTC, then the high correlations between NTC leadership and unit performance can only reflect a direct relationship between these variables.

The correlations between the measures of Home Station leadership and NTC leadership are displayed in Tables 4 and 5 for the PL and PS, respectively. The results for the PL shown in Table 4 are unambiguous in revealing no association in leadership displayed in the two settings. The results are less clean-cut for PS leadership. The significant correlations found between the SM and company commander ratings of Home Station leadership on the one hand with the OC ratings of NTC leadership on the other suggest the possibility that the PS's leadership functions and required capabilities may be similar in the two settings. This is slightly reinforced by the marginally insignificant correlation ( $r = .31, p = .06$ ) between company commander ratings of Home Station leadership and

<b>Rating of PL Home Station Effectiveness</b>	<b>PL Mission Performance</b>	<b>PL Overall Performance</b>
<b>SM Rating</b>	.08	.21
<b>SL Rating</b>	.20	.24
<b>Co Cdr Rating</b>	.14	.16

1:  $N = 27$

**Table 4. Correlations Between Ratings of PL Home Station Leadership Effectiveness & PL NTC Performance.**

Rating of PS Home Station Effectiveness		PS Mission Performance	PS Overall Performance
Rater	Rated Leader		
SM Rating		.64**	.10
SL Rating		.24	.29
Co Cdr Rating		.31	.33*

1: N = 27

\* $p < .05$   
\*\* $p < .01$

**Table 5. Correlations Between Ratings of PS Home Station Leadership Effectiveness & PS NTC Performance.**

the OC's average rating of the PS' mission effectiveness. However, taken as a whole, these results do not lend compelling support to this possibility.

These results generally support the notion that combat leadership is different from leadership required in garrison and that the correlations between leadership at NTC and unit NTC performance truly reflect a direct relationship between these two variables.

#### Home Station Leadership and Unit NTC Performance

The Home Station leadership effectiveness of each platoon leader and platoon sergeant was rated by the service members and squad leaders in the platoon and by the company commander above them. If Home Station leadership is correlated to NTC

Ratings of Home Station Effectiveness		Platoon Mission Performance	Platoon Overall Performance
Rater	Rated Leader		
SM	PL	.26	.14
	PS	.19	.03
SL	PL	.17	-.01
	PS	.23	.26
Co Cdr	PL	.28	.07
	PS	.40*	.25

1: N = 28

\* $p < .05$

**Table 6. Correlations Between Home Station Leadership Effectiveness and Platoon NTC Performance.**

	PLATOON SERGEANT		PLATOON LEADER	
	Mission Performance	Overall Performance	Mission Performance	Overall Performance
<b>COHESION 1,2</b>				
- Horizontal Affective	.25	.13	.03	.01
- Horizontal Instrumental	.47 *	.10	.05	.11
- Vertical Affective	.25	.04	.07	.04
- Vertical Instrumental	.63 **	.09	.10	.15
- Organizational Affective	.30	.14	.05	.02
- Organizational Instrumental	.47 *	.19	.09	.04
- Overall Cohesion	.47 *	.03	.01	.05
<b>SOLDIER MOTIVATION</b>				
	.51 *	.16	.07	.10
<b>MORALE</b>				
	.45 *	.02	.03	.07

1: Cohesion, Morale & Motivation scores based on SH responses aggregated to platoon scores  
 2: Ns for correlations range between 15 (PS Mission Performance) to 27 (PS & PL Overall Performance)

\* p<.05  
 \*\* p<.01  
 \*\*\* p<.001

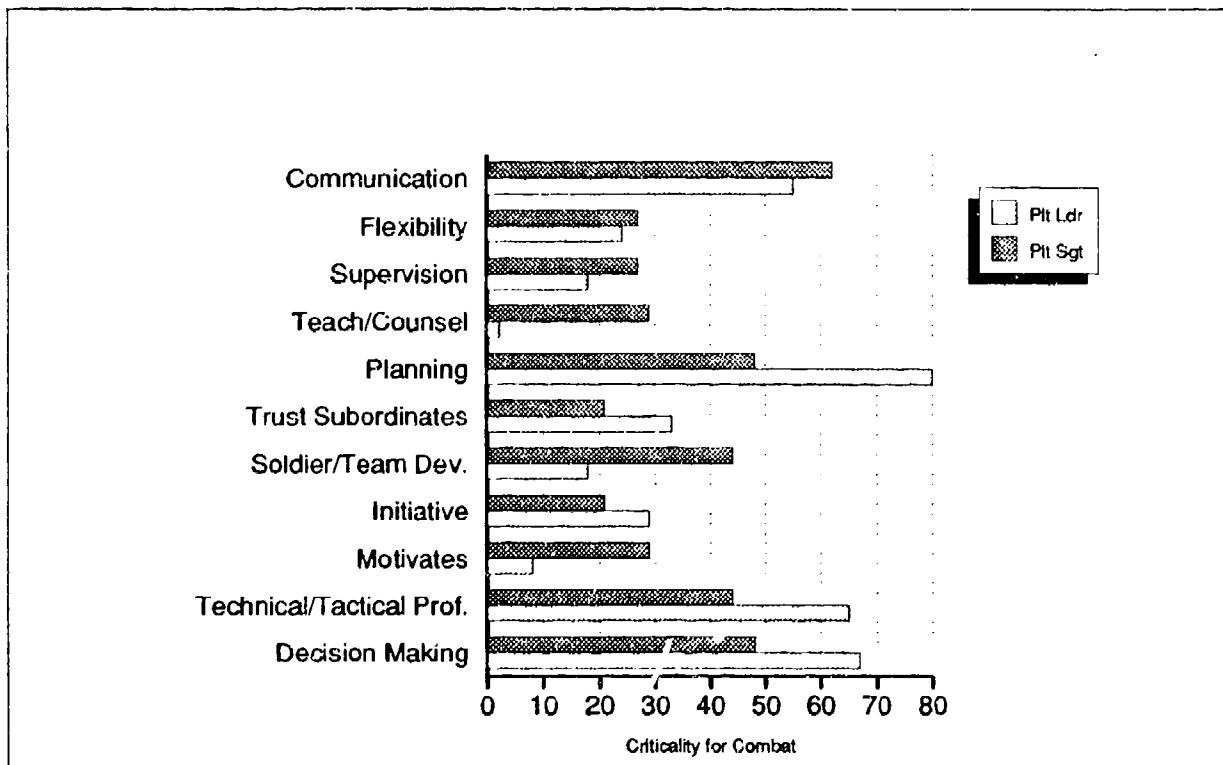
**Table 7. Relationships Between Combat Leadership and Soldier Motivation, Cohesion, and Morale.**

performance, we would expect that these measures would be related to the platoon's performance at NTC. Table 6 presents these correlations. With a single exception, these correlations indicate that the Home Station leadership of neither the platoon leader nor the platoon sergeant is associated with the platoon's performance at the NTC.

#### Combat Leadership and Soldier Motivation

If it is not through its relationship to Home Station leadership, then by what means does combat leadership influence unit performance at NTC? Certainly the tactical decisions made by the leader during combat can influence the battle outcome. But leadership operates principally by its influence on subordinate performance and therefore some relationship between combat leadership and soldier motivation would be expected. To gain some insight into how combat leadership influences unit operations and performance, correlations were calculated between the OC ratings of leaders' NTC performance and the Home Station measures of soldier cohesion, morale and motivation. These correlations are displayed in Table 7. Significant correlations in this table are restricted to the associations between the motivation, morale, and cohesion measures to platoon sergeant performance during the tactical missions.

Inspection of the correlations of this measure with the cohesion subscales allows some insight into why these results are obtained. Among the cohesion subscales, it is the instrumental cohesion subscales (and especially that of vertical instrumental cohesion) that are correlated to platoon sergeant combat leadership. These subscales reflect the soldiers' bonding to the unit on the basis of the unit's advancement of their personal and



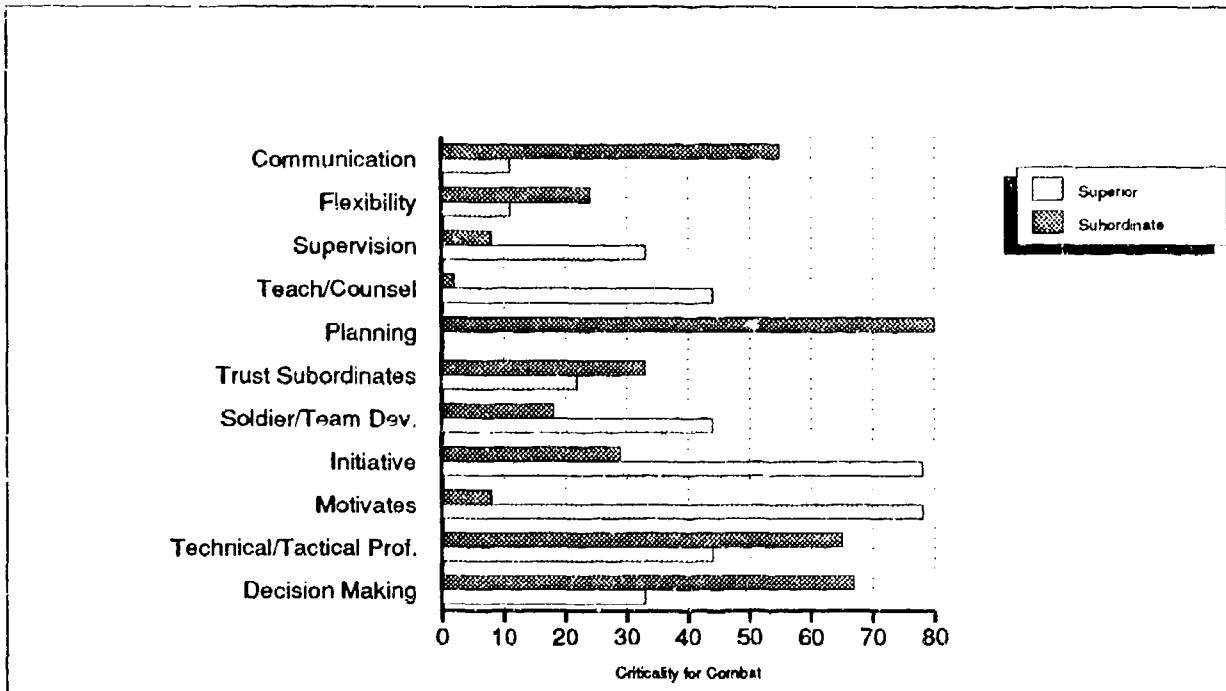
**Figure 4. Perceived Criticality of PS and PL Leadership Competencies, (Combined Ratings of SMs and SLs).**

collective goals. It appears that the platoon sergeant's skills and attributes that underlie his successful combat performance at NTC are apparent to his subordinates at Home Station. Here they inspire confidence in the unit with associated increases in soldiers' cohesion, motivation, and morale. These attributes can only further enhance the unit's combat potential.

The lack of any relationship between platoon leader combat leadership and soldier motivation, morale, and cohesion may reflect the fact that the platoon leader has less direct contact with the soldiers in the unit and therefore less of a role in inspiring their confidence in their unit and their bonding to it.

#### The Importance of Leadership Competencies

Leadership is not a single factor but encompasses a wide variety of functions and skills. While the results discussed earlier suggest that leadership may make an important contribution to battle outcomes, they leave unclear which specific leadership functions are most important in influencing the unit's combat performance. To probe this issue, analyses were performed on the ratings which were given to the CAL leadership competencies on their importance to combat performance. Figure 4 shows the importance ratings given to the platoon leader and platoon sergeant leadership competencies by service members and squad leaders ( $N = 49$ ). The differences in the ratings across the two rated positions reveal a definite distinction in the roles of the platoon leader and platoon sergeant. For the platoon leader, the most important leadership competencies are Planning, Decision Making, and Technical and Tactical



**Figure 5. Ratings of PL Leadership Competency Criticality by Subordinates (SM/SL Ratings) and Superiors (Company Commanders).**

Proficiency. On the other hand, he is seen as having almost no requirement for Teaching and for Motivating subordinates. The image of the platoon leader portrayed in these ratings is of a strategic planner and manager who has little direct involvement with the unit members.

The importance ratings given to the platoon sergeant leadership competencies reveal a complementary role. For the platoon sergeant position, service members and squad leaders saw less dramatic differences in the importance of the various leadership competencies. The competencies concerned with the direct supervision of subordinates — Teaching, Motivating Subordinates, Supervision — which were given very low importance ratings for the platoon leader position were rated as much higher in importance for the platoon sergeant. Likewise, competencies associated with the planning and decision making functions were rated lower in importance for the platoon sergeant than for the platoon leader.

In the view of their subordinates, then, the leadership requirements of the platoon leader and platoon sergeant positions are quite different. In supporting platoon combat performance, the platoon leader need only be a managerial specialist, formulating plans and making strategic decisions. The platoon sergeant, while needing some skills in these areas as well, needs to be much more proficient in the interpersonal skills needed to develop and direct subordinates.

The importance ratings given to the leadership competencies also revealed that the ratings given to the competencies were highly dependent on the relationship of the rater to the rated position. The platoon leader leadership competencies were also rated by company commanders ( $N = 9$ ) and the differences in these scores compared to those given

by the service members and squad leaders reveal a much different perspective on the leadership requirements for the platoon leader position. For purposes of comparison, the company commander's ratings of the platoon leader leadership competencies are presented in Figure 5 with those given by the service members and squad leaders. In several ways, these two sets of ratings are near mirror images of one another. For example, while Planning was ascribed the most importance in the service member/squad leader ratings, the company commanders attributed virtually no importance to it. In the same vein, Decision Making and Technical/Tactical Proficiency were given much lower importance rating by the company commanders. Conversely, the competencies seen as least important for the platoon leader by service members and squad leaders (i.e., Motivating Subordinates and Teaching) were given high importance ratings by company commanders.

The inconsistency in the ratings given by the platoon leaders' subordinates and commanders prevents firm conclusions from being drawn regarding the relative importance of the various leadership competencies identified by CAL. However, these same differences reveal an intriguing and potentially important dynamic in the perception of military leadership roles. It appears that commanders see their subordinate leaders as having little or no requirement to develop plans or make decisions. They instead see their subordinate leaders as implementers of decisions made higher in the chain of command. Subordinates, on the other hand, view these same individuals as principally involved in planning and decision making and only secondarily concerned with implementation. It would appear that this disparity, if confirmed in later Determinants research, could have very significant implications for how roles are defined and operations are conducted in units but also for how junior leaders are developed and supported.

#### Unit Training Practices

In the months preceding the NTC rotation, units typically intensify their training to prepare for the exercises. Though this effort's data collection did not intensively focus on the training methods and practices, it did include sufficient measures of unit training to allow a preliminary examination of how training figures into the development of unit combat capability. Specifically, three research questions regarding unit training can be addressed in analyses of this project's data:

- How is a unit's training emphasis at Home Station related to its performance at NTC?
- What is the training value of the NTC rotation itself?
- What impact do trainer methods have on unit outcomes?

The results of the analyses addressing these questions are as follows.

#### Unit Training Emphasis and NTC Performance

In the data collection, company commanders were asked to describe the quality and quantity of the training in their units according to the echelon at which the training occurred. These ratings were compared to platoon NTC performance by aggregating the platoon NTC performance ratings provided by the OCs into company-level figures.

Table 8 displays the correlations obtained in comparing these aggregated performance scores to the ratings of the quality of training conducted at different echelons. As shown, a very systematic pattern of results was obtained. Where the training emphasis in a company was directed at providing high quality *individual* training, there was a strong tendency for the platoons in that company to not perform well ( $r = -0.77$ ,  $p < .01$ ). On the other hand, where the company enjoyed a high quality *battalion*-level training program, the platoons in that company performed well at NTC ( $r = .74$ ,  $p .01$ ). Although the correlations at the other echelons were nonsignificant, there is a consistent pattern of a greater positive relationship of training quality and NTC performance as the training echelon gets higher.

Quality Rating for Type of Training <sup>1</sup>	Correlation with Platoon NTC Performance <sup>2</sup>
Individual Training	-.77*
Squad/Crew	.15
Platoon - Level	.40
Company - Level	.44
Battalion - Level	.74**

1: Company Commander Rating (N=9)  
2: OC Rating

\* $p < .01$

**Table 8. Correlations Between Quality of Training and Platoon NTC Performance.**

Assuming that with finite resources, there is an inherent trade-off between the quality of training at one level with that at another, these results suggest that units which choose to (or have to) emphasize the quality of their individual training at the expense of their higher echelon training, produce platoons with lower combat potential. Conversely, a higher-level emphasis in training is associated with platoons that are more successful in combat. This interpretation must be made cautiously, however, due to the small N on which the results are based.

In apparent contradiction to these results are those achieved with the company commanders' ratings of the *amount* of platoon-level and company-level training conducted at in their units. Company commanders were asked to rate the amount of company-level and platoon-level training that typically occurs in their units for each of five different missions. The ratings given to the platoon-level training was significantly and positively associated with the performance of the platoons in the company for four of the five missions while the rated amount of company-level training was not (see Table 9). These results seem to indicate that a training emphasis at the smaller unit level is a more productive approach to developing unit combat potential.

Mission	Amount of Mission Training at Platoon Level <sup>1</sup>	Amount of Mission Training at Company Level <sup>1</sup>
Movement to Contact	.55	-.49
Hasty Attack	.66*	-.44
Deliberate Attack (Day)	.67*	-.43
Deliberate Attack (Night)	.78**	.41
Defense	.76**	.04

1: Company Commander Ratings (N=9)

<sup>\*</sup> $p < .05$   
<sup>\*\*</sup> $p < .01$

**Table 9. Correlations of Platoon NTC Performance with Quantity of Mission**

Considering the results presented in Tables 8 and 9 together, it appears that a unit training emphasis on collective training is preferable over an individual training emphasis. However, the exact level at which the training should focus remains unclear in the present results.

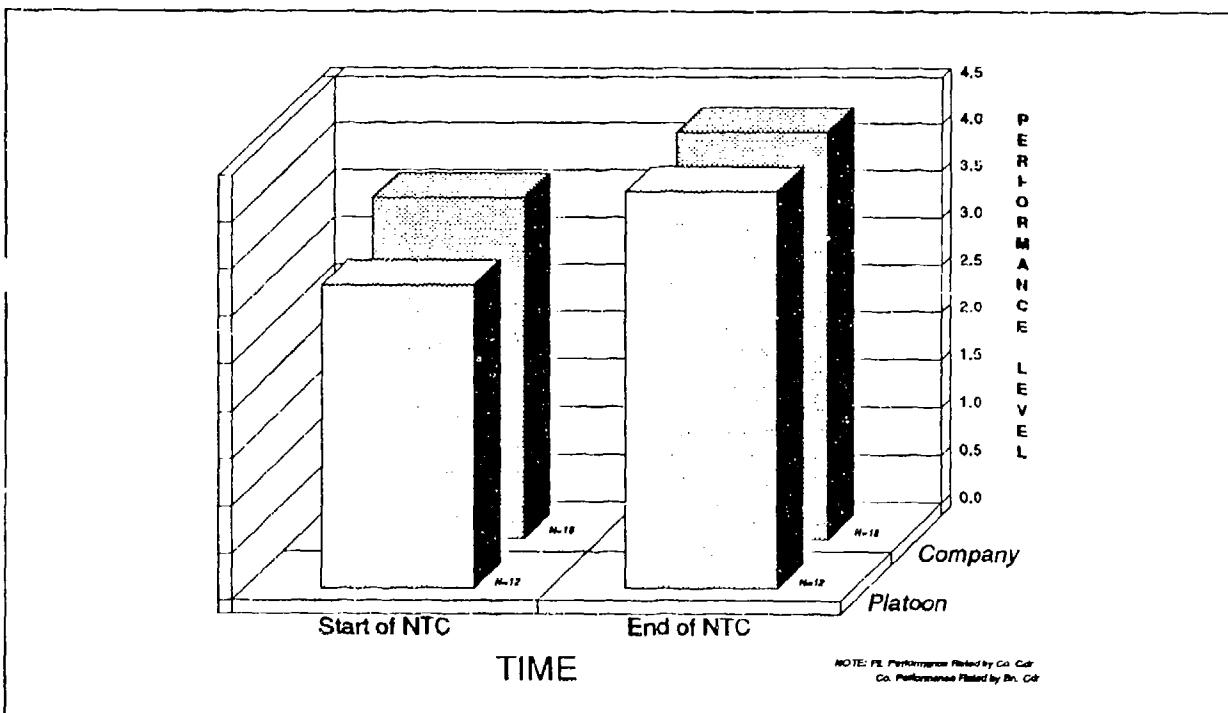
#### The Training Value of NTC Rotations

The primary purpose of NTC is to train units in realistic combat conditions. It can be expected therefore that as a result of a rotation units and the people within them should show a higher level of performance.

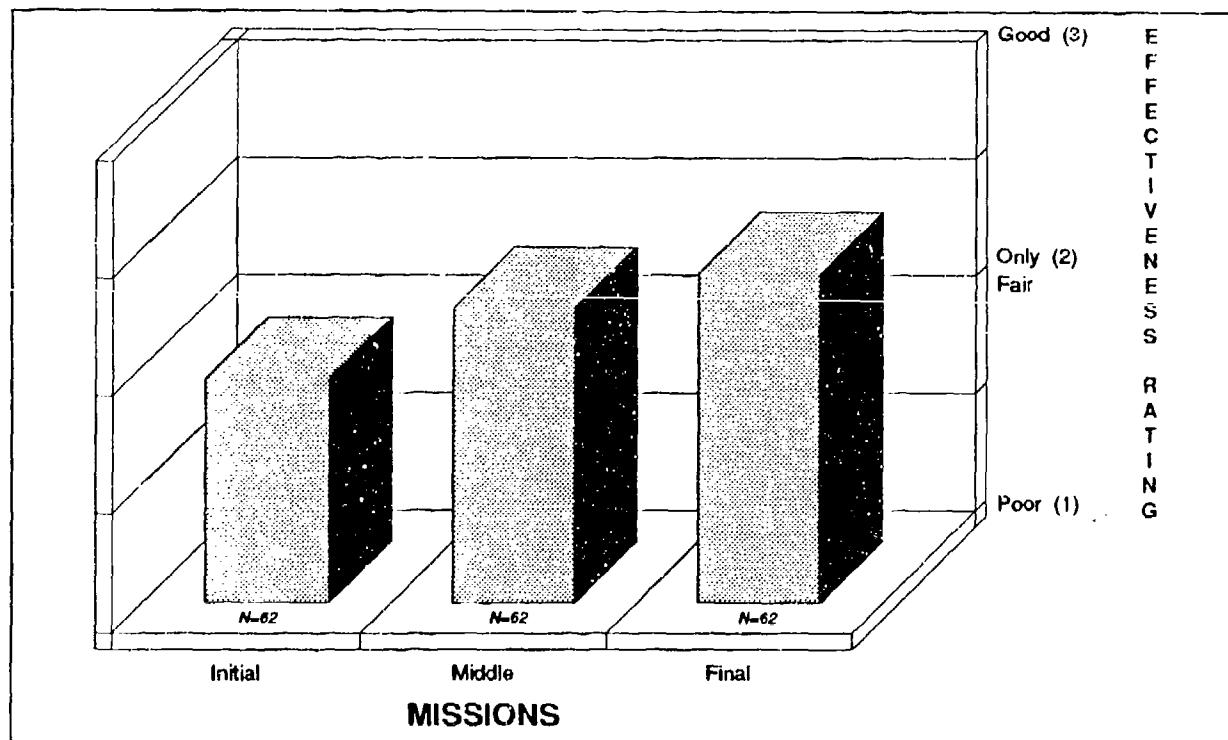
Company commander and OC ratings were examined to look for evidence of improvement in platoon performance across the rotation. In both cases (see Figures 6 and 7), the analysis results indicated that the platoons performed better at the end of the rotation than they did at the rotation's start.

A second line of analysis looked at the contribution of NTC training to individual proficiency. If NTC instills a higher level of combat proficiency in the individuals who participate in rotations, it can be expected that units that include a higher percentage of NTC-experienced personnel should perform better during a rotation. However, as shown in Table 10 the amount of NTC experience in unit leadership positions was not significantly associated with unit NTC performance.

This combination of results suggests that while the immediate benefits of NTC to unit performance is pronounced enough to be discernable in even this limited sample, more extensive data will be required to investigate the long-term effects of NTC rotations to Army-wide individual combat skills. Further analyses will need to consider a much broader range of NTC experience levels and more pronounced unit differences in the proportion of NTC-experienced personnel before firm conclusions can be drawn about NTC effects on individual combat skill.



**Figure 6. Commanders' Ratings of Unit NTC Performance at the Start and at the End of the Rotation.**



**Figure 7. OC Ratings of Platoon Mission Performance by Mission Sequence.**

Position	Correlation with Platoon NTC Performance
Co Cdr	-.15
1st Sgt	-.32
PL	-.04
PS	-.20

**Table 10. Correlations Between Unit NTC Performance and Level of NTC Experience in Categories of Unit Personnel.**

#### Trainer Leadership Style

On a day-to-day basis the application of leadership at the small unit level is concerned with the conduct of unit training. The interpersonal skills and style typically associated with leadership are exercised daily by small unit trainers and leaders as they conduct training and develop individual and collective skills in their unit. This research question concerns the differences in training styles which can be found among unit trainers and the impact these differences have on the development of unit potential and performance.

Analyses directed at this research question involved service member responses to questions on the Pre-rotation survey concerning the training practices of the platoon leader and the platoon sergeant in their platoons. For individual training and for collective training, these items asked about the incidence with which each of these individuals did the following:

- Told the SM what he was doing right
- Told the SM what he was doing wrong
- Told the SM how to improve his performance
- Gave the SM the opportunity to correct mistakes and improve his performance.

Based on earlier research (e.g., Szilagy, 1980), it can be expected that a training style that emphasizes positive, supportive coaching will be related to higher soldier motivation, morale, and unit performance.

The comparisons of unit and leader NTC performance with the Home Station training practices of the platoon sergeant are presented in Table 11. The correlations shown in this table indicate that with one exception no direct relationship was found between platoon sergeant's training practices and unit tactical performance at the NTC. Conversely, with the exception of one item (dealing with the frequency with which the platoon

	PLATOON		PLATOON SERGEANT	
	Mission Performance	Overall Performance	Mission Performance	Overall Performance
<b><i>In Individual Training. PS:</i></b>				
- Tells Me What I'm Doing Right	.23	.05	.77 ***	.04
- Tells Me What I'm Doing Wrong	.00	.20	.40	.12
- Tells Me How to Improve Performance	.03	.08	.51 *	.12
- Gives Me Opportunity to Correct Mistakes	.08	.37 *	.83 **	.17
<b><i>In Collective Training. PS:</i></b>				
- Tells Me What I'm Doing Right	.27	.00	.80 ***	.08
- Tells Me What I'm Doing Wrong	.16	.01	.49 *	.10
- Tells Me How to Improve Performance	.22	.12	.73 ***	.15
- Gives Me Opportunity to Correct Mistakes	.03	.23	.70 **	.16

1: Average SM response for Platoon  
2: Ns for correlations range between .20-.27

\* p<.05  
\*\* p<.01  
\*\*\* p<.001

**Table 11. Relationship of Unit and PS NTC Performance with PS Training Feedback.**

sergeant tells subordinates about what they're doing wrong), there were consistent and strong relationships between platoon sergeant training practices and his own effectiveness during tactical missions. The results found with respect to collective training and individual training are consistent in showing a much lower relationship between negative feedback and combat leadership.

Platoon sergeants who are effective combat leaders can therefore be characterized at Home Station by the nature of the feedback they give during training. They provide their trainees with a high level of feedback on their performance, stressing the positive features of the performance and ways in which it can be improved. They do not emphasize their subordinates' errors and mistakes.

The pattern of results found with platoon leader training practices (see Table 12) are much different from those found with regard to the platoon sergeant. In these results, the significant relationships were restricted to the relationship between training feedback provided during individual training and the overall NTC performance of the platoon. No relationship was found with platoon *combat* (mission) performance. The training feedback on subordinate mistakes was again not related to either unit or platoon leader NTC performance.

	PLATOON		PLATOON LEADER	
	Mission Performance	Overall Performance	Mission Performance	Overall Performance
<i>In Individual Training. PL:</i> <sup>1,2</sup>				
- Tells Me What I'm Doing Right	.13	.32 *	.01	.01
- Tells Me What I'm Doing Wrong	.14	.22	.24	.21
- Tells Me How to Improve Performance	.15	.32 *	.09	.11
- Gives Me Opportunity to Correct Mistakes	.08	.32 *	.32	.06
<i>In Collective Training. PL:</i>				
- Tells Me What I'm Doing Right	.31	.07	.32	.16
- Tells Me What I'm Doing Wrong	.23	.05	.02	.02
- Tells Me How to Improve Performance	.25	.11	.12	.02
- Gives Me Opportunity to Correct Mistakes	.17	.26	.08	.07

1: Average SM response for Platoon  
2: Ns for correlations range between 15-27

\* p<.05

**Table 12. Relationship of Unit and PL NTC Performance with PL Training Feedback.**

Since the style with which a leader interacts with his or her subordinates has been typically found to be associated with subordinate morale and motivation, analyses were also conducted to look at how the training practices measures were related to platoon cohesion and job motivation. The results of these analyses are shown in Table 13 (for the platoon sergeant) and Table 14 (for the platoon leader). Only the summary cohesion measure's results are presented in these tables, since the pattern of results shown for this measure represents that found with the six cohesion subscales.

The results in these tables reveal a very strong relationship between the type of training feedback platoon leaders and platoon sergeants give to their subordinates and the subordinates motivation and cohesion. In the platoon leader results, the amount of feedback given on subordinate mistakes is unrelated to either measure of subordinate affect.

In summary, the analysis results related to this research question are consistent in suggesting that the style with which small unit trainers and leaders interacts with his subordinates may be very important in influencing the motivation of their soldiers in Home Station and the bonding of the soldier to his unit. When the training style of platoon leaders and sergeants goes beyond fault finding and includes more positive feedback and direct performance coaching the orientation of their soldiers towards their jobs and units are more positive. Possibly because of this dynamic, this same style

	Soldier Cohesion	Soldier Motivation	Soldier Morale
<i>In Individual Training, PS:</i> <sup>12</sup>			
- Tells Me What I'm Doing Right	.59 ***	.60 ***	.46 **
- Tells Me What I'm Doing Wrong	.34 *	.48 **	.34 **
- Tells Me How to Improve Performance	.43 **	.51 **	.33 *
- Gives Me Opportunity to Correct Mistakes	.46 **	.64 ***	.44 **
<i>In Collective Training, PS:</i>			
- Tells Me What I'm Doing Right	.49 **	.51 **	.45 **
- Tells Me What I'm Doing Wrong	.40 *	.43 **	.30
- Tells Me How to Improve Performance	.43 **	.47 **	.40 *
- Gives Me Opportunity to Correct Mistakes	.51 **	.64 ***	.45 **

1: Average SM response for Platoon

2: N=27

\* p&lt;.05

\*\* p&lt;.01

\*\*\* p&lt;.001

**Figure 13. Correlations Between PS Feedback and Soldier Motivation, Morale, and Cohesion.**

	Soldier Cohesion	Soldier Motivation	Soldier Morale
<i>In Individual Training, PL:</i> <sup>13</sup>			
- Tells Me What I'm Doing Right	.64 ***	.64 ***	.45 **
- Tells Me What I'm Doing Wrong	.22	.18	.12
- Tells Me How to Improve Performance	.62 ***	.57 ***	.39 *
- Gives Me Opportunity to Correct Mistakes	.58 ***	.53 **	.47 **
<i>In Collective Training, PL:</i>			
- Tells Me What I'm Doing Right	.60 ***	.47 **	.43 **
- Tells Me What I'm Doing Wrong	.19	.03	.09
- Tells Me How to Improve Performance	.49 **	.37 *	.36 *
- Gives Me Opportunity to Correct Mistakes	.56 ***	.48 **	.49 **

1: Average SM response for Platoon

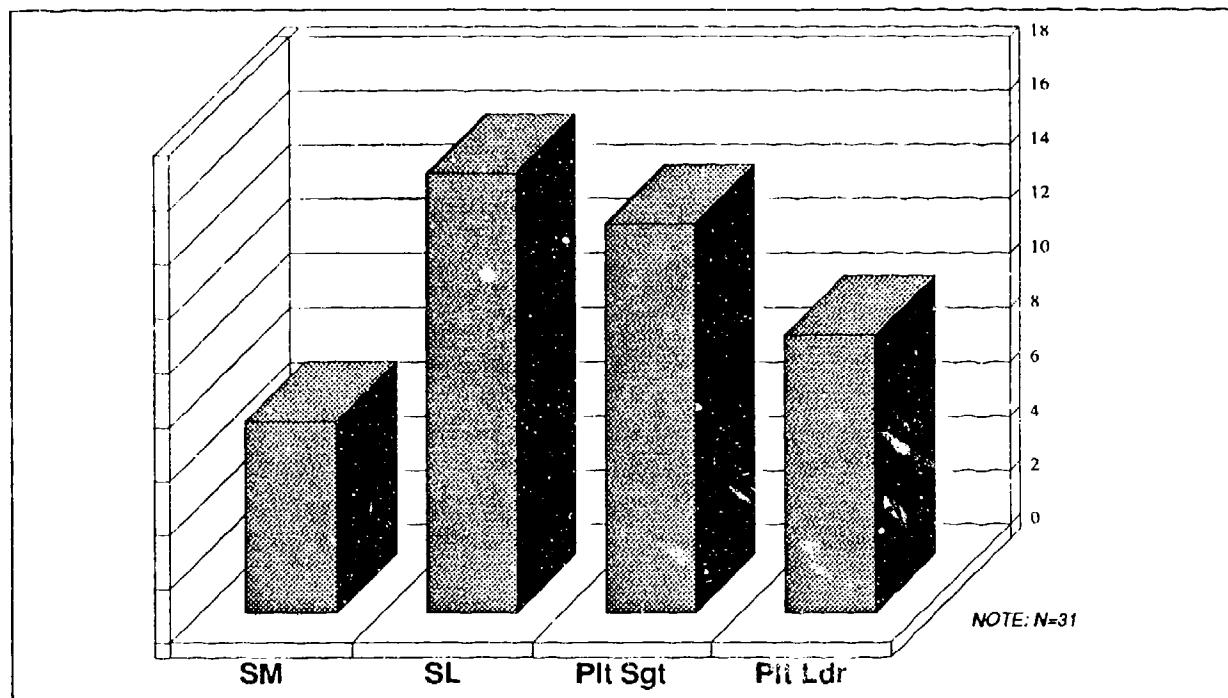
2: N=27

\* p&lt;.05

\*\* p&lt;.01

\*\*\* p&lt;.001

**Table 14. Correlations Between PL Feedback and Soldier Motivation, Morale, and Cohesion.**



**Figure 8. Average Number of Months in Platoon for Categories of Platoon Personnel.**

characterizes platoon sergeants who are successful combat leaders and platoon leaders of units that perform well at NTC.

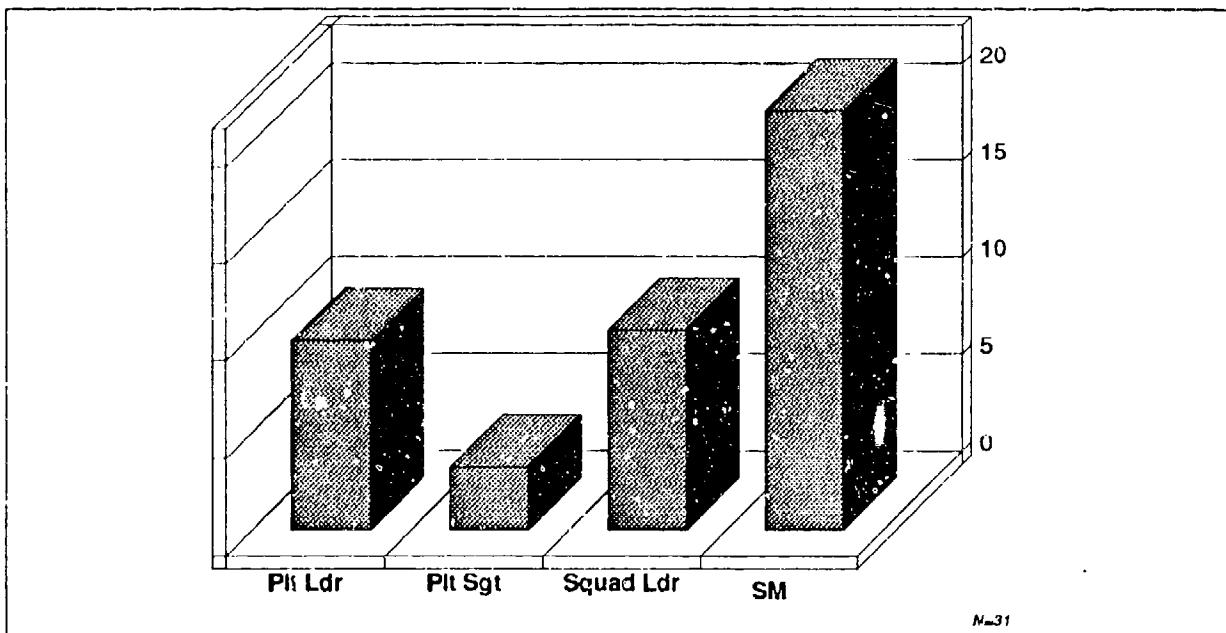
#### Unit Personnel Characteristics

##### Personnel Turbulence and Unit Tactical Performance

The high rate of personnel turbulence typically found in Army units has long been a matter of concern for Army leaders and policy makers. It has been held that turbulence, by undermining acquired collective skills and unit cohesion, undercuts unit combat potential.

If this is so, it would be especially true of units deploying to NTC since these units often undergo turbulence above and beyond their normal levels as they prepare for their rotation. As part of this preparation, NTC-bound units will often "ramp up" their personnel resources, filling vacant positions with "fillers" — individuals assigned to the unit specifically for the rotation. Under these conditions, units and crews must assimilate and develop new members just as they are undergoing an intensive train-up for NTC.

Data collected in the Pre-rotation questionnaire show that this was in fact the case among the units examined in this report. Figure 8 shows the average number of months platoon personnel reported have been in their current platoon. Among service members

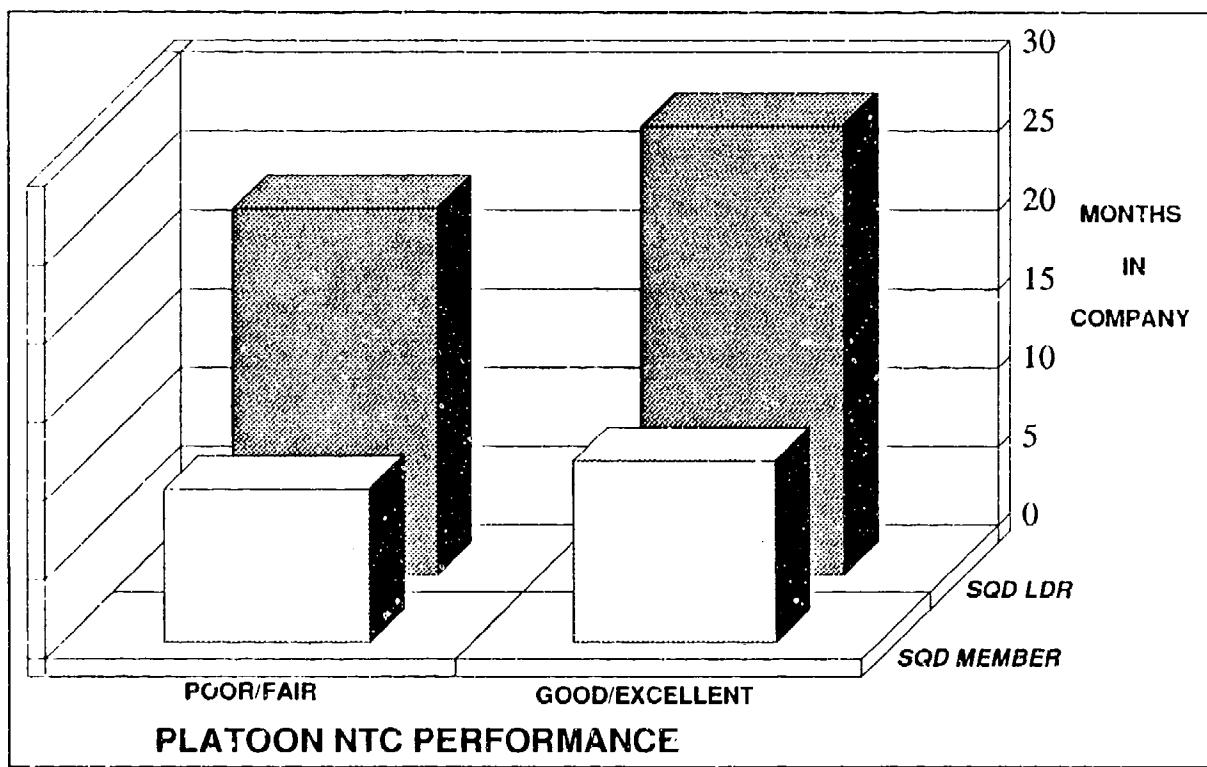


**Figure 9. Percentage of Fillers by Personnel Category.**

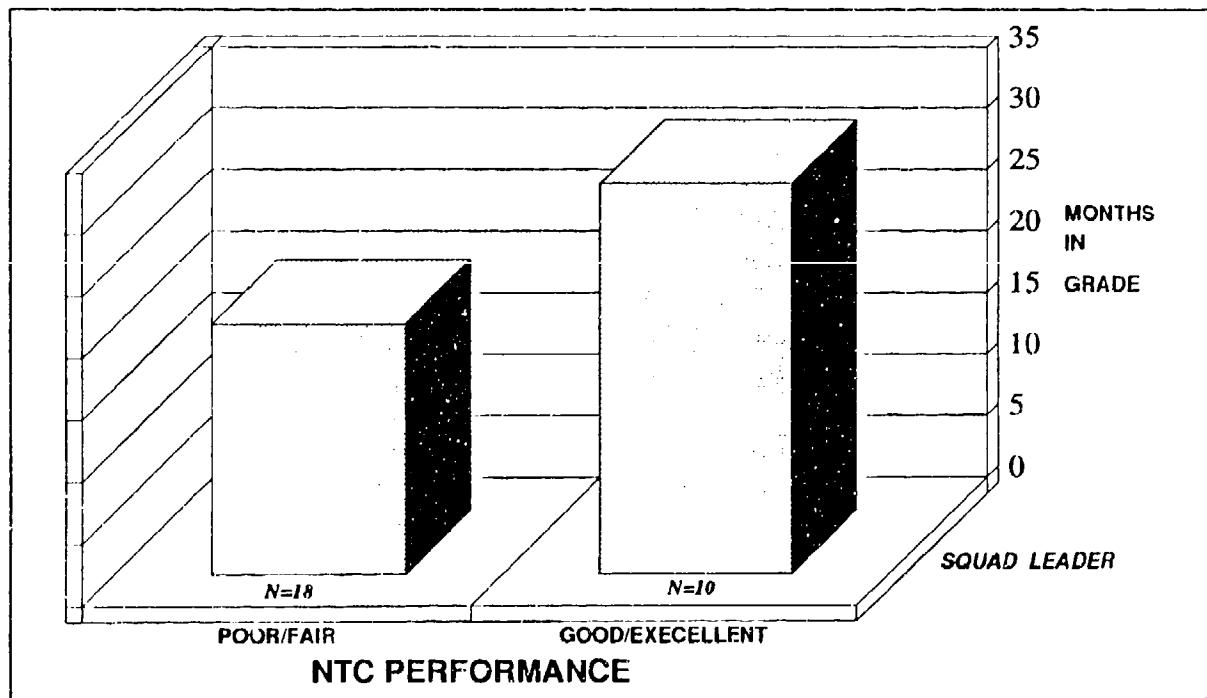
particularly this figure is quite low, although the average tenure for platoon leaders is also surprisingly low. One reason for these results is suggested in Figure 9 which shows the average percentage of personnel in each platoon who reported being assigned to their unit just for the rotation. Among service members almost 22% report that they are "fillers".

To assess the relationship of turbulence to unit combat potential, platoon mission performance at NTC was compared to these turbulence figures. Although the relationship of performance with *platoon-level* turbulence was not significant, a sizable and statistically significant relationship (see Figure 10) was found between platoon performance and the number of months platoon personnel had been in their *company*. This suggests that reassignment of people across platoons within the company is less detrimental than the introduction of new people from outside the company. As the data in Figure 10 shows, the turbulence/performance relationship was stronger among squad leaders than service members. This finding indicates that the negative impact of turnover among leaders is more severe than among soldiers.

Related to this finding, analyses also revealed that higher performing platoons also had more senior squad leaders (see Figure 11). Therefore, within the constraints of the current effort, it appears that experience -- in the Army, in his position, and in his unit -- is a valuable asset to the small unit leader in leading his unit during tactical exercises.



**Figure 10.** Squad Member and Squad Leader Time in Company as a Function of Platoon NTC Performance.



**Figure 11.** Relationship of Squad Leader Seniority and Unit NTC Performance.

## DISCUSSION

The results of the present effort have several implications for the continuing research on the manpower, personnel, and training (MPT) determinants of unit combat performance. The limited scope of the present effort of course precludes any conclusions on how unit Home Station factors operate to effect unit tactical performance. However, within its constraints, the current effort has served to demonstrate that these factors, as defined and measured in the Determinants project, do indeed tap into the precursors of unit combat performance. This suggests that the research paradigm used in this effort holds considerable promise. With additional data drawn from a broader range of units, it should prove possible to specify as never before how units can be best manned, led, and trained for maximum combat readiness.

Beyond this general finding, the results of this effort also include a number of more specific findings which suggest several very promising areas to study further in the more extensive efforts to follow in the Determinants project.

### The Measurement of Unit Performance

The correlation observed between commanders' and OC's rating of platoon NTC performance suggests that small unit combat performance *can* be reliably measured through observer ratings. Even though the process of battle — simulated or actual — is determined by complex interactions of extremely dynamic factors, and even though the conditions, objectives and performance standards of missions can vary widely across units and exercises, there is enough agreement in what constitutes success in combat that independent observers can reach the same conclusion about the effectiveness of a unit in a particular exercise. This finding provides some assurance that observer ratings can serve as an acceptable and cost-effective means of assessing unit tactical performance and as a criterion measure for research in this area.

If subsequent research confirms this finding, it would be of importance for at least two reasons:

- Training environments which do not enjoy the level of instrumentation found at the NTC (e.g., the JRTC, ARTEPs) typically rely on observer judgements as the primary measure of effectiveness in assessing unit performance and training needs. By calibrating observer ratings against NTC digital performance data, it should prove possible to provide observer guidelines and rating guides for use in such situations.
- This finding supports the use of observer ratings as an alternate for, or supplement to, NTC digital performance measures in research on the determinants of combat performance. By broadening the scope of the performance measures used in this research, a fuller analysis of the Home Station determinants of that performance would be possible.

## Leadership

The results of this effort support the idea that combat leadership is a significant component of, or contributor to, unit combat performance. At least two lines of analysis point to a relationship between leadership and unit performance:

- Observer/Controllers who directly observed the exercises cited leadership as very important to the exercises' outcomes
- Substantial correlations were observed between direct ratings of platoon leadership and the quality of the platoons' tactical performance. Further, these correlations held up when these two sets of ratings were provided by different raters at different points in time.

Though the former result may be only a reflection of a shared belief of leadership's importance among Army personnel, the latter result gives stronger evidence of a leadership/performance relationship. The data is less clear, however, on the nature of this relationship and the unit dynamics by which it is produced.

One unclear area which hinders easy interpretation of the leadership results is the murky relationship between Home Station platoon leadership, as rated by unit members and leaders, and the combat leadership observed and rated at NTC by OCs. While combat leadership showed a sizable relationship to unit performance, there was no strong association between that performance and Home Station leadership. Further, Home Station leadership was not directly related to leadership displayed at NTC. These results suggest that the attributes and skills that define effective Home Station leadership are quite different from those that constitute combat leadership. Just what these differences are is left indistinct by the present results, however. Indeed, the present data provide some insight into the nature of only combat leadership and even here, discrepancies exist in the data.

For the platoon leader at least, the data show that the definition of effective combat leadership varies by the position of the individual providing that definition. Subordinates see the position being that of a removed planner and manager while superiors see its role as one of a motivator of subordinates and implementer of others' plans and decisions. This result raises the prospect that that this difference in perspective is not unique to the platoon leader position, but rather is a single instance of a larger pattern extending across all leadership positions. Is it in fact the case that leaders in general require their subordinate leaders only to motivate and guide their personnel and see no need or opportunity for independent decision making? Do subordinates see the combat function of higher leaders being only that of tactical planning and not look to them for motivation and guidance? If this were so, then it is problematic in at least two ways. First, it would leave the nature of combat leadership ambiguous and dependent on individual perceptions. Such a lack of consensus in the requirements of combat leadership would be a considerable obstacle to any research seeking to study its development and effects. Secondly, it would present a serious problem for leader development in units, for how are senior leaders to develop their subordinate leaders if they do not appreciate the full range of skills their subordinates require for effective combat leadership?

In the case of the platoon sergeant position, this effort's data on leadership style gives some insight into the nature of effective combat leadership. Specifically, the results of this research show that platoon sergeants who were effective at NTC displayed a characteristic leadership style while training their subordinates at Home Station. They

provided more positive feedback and took more pains to coach their soldiers on how to improve their performance. Interestingly, the amount of feedback platoon sergeants gave on their subordinates' mistakes and errors was unrelated to their effectiveness as combat leaders. This suggests that while all leaders provide feedback on subordinates' mistakes, effective combat leaders go beyond this to guide and encourage their subordinates to develop their skills. This style of interaction appears not only to induce higher motivation, cohesion, and morale among their soldiers at Home Station but also to carry over to support the leaders' effectiveness during tactical exercises at NTC.

There are at least two possible dynamics by which this can occur:

- The platoon sergeant's leadership style not only is more effective in developing soldiers' skills but also fosters soldier motivation, morale and vertical cohesion at Home Station. In this way the platoon sergeant produces the very same positive conditions (high subordinate ability and motivation) that support the subsequent effectiveness of his leadership at NTC (Blades, 1986; Fiedler, et al, 1979).
- The abilities and leadership style which underlies the platoon sergeant's capacity to inspire and motivate his soldiers at Home Station are the same ones which he applies with the same effect at NTC.

Of these two possibilities, the former seems more probable since if the latter explanation were true, we would expect to observe a significant positive correlation between platoon sergeants' Home Station and NTC leadership, a result that was not obtained in the present effort.

#### Unit Personnel Characteristics

The present results support an idea that has been widely held among Army leaders — that personnel stability is an important condition for developing unit capability. The stability of unit personnel, and especially of small unit leaders, was substantially related to unit tactical performance at NTC. If confirmed in later research, this result would support Army policies and programs (e.g., the COHORT program) designed to further unit readiness by reducing unit turnover.

Army programs such as these would benefit from more detailed research on turbulence's effects. In addition to confirming the relationship between unit turbulence and performance, future research should be directed at identifying the mechanism(s) by which this relationship is obtained and the variables which moderate its size. For example, with more extensive samples of units, future efforts in the Determinants project attention could be usefully directed at research questions such as:

- Does turnover undermine unit performance by reducing collective skills? Earlier research (Army Training Study, 1978; Funk, 1980) has suggested that personnel turbulence constrains progressive training and the development of collective skills, thereby diminishing unit capability. In the present effort, two results are consistent with this proposition: (1) units that were able to devote resources in collective training were more successful at NTC; and (2) units with high turnover performed less well. However, with the limited data available in this effort, it has not been possible to examine the interactive effects of

turnover and collective training on performance. Future, more extensive, research is needed to examine these effects.

- **Does turnover effect unit tactical performance by reducing unit cohesion?** Unit stability is widely held (e.g., Henderson, 1983, Johns et al, 1984) to be a necessary precondition for cohesion among unit members. Cohesion in turn is held to be an important contributor to unit performance, particularly under stress. Since the scope of the present effort did not allow a test of this model, future research conducted on larger and wider samples will need to address this possible mechanism linking unit turbulence to unit performance.
- **At what levels is turbulence most disruptive?** It is of course impossible to eliminate turbulence entirely from Army units since some level of reassignments, retirements, promotions, etc. will always occur and necessitate turnover of unit personnel. Additionally, the administrative and managerial efforts and costs of reducing turbulence increase sharply with greater attempted turbulence reductions. If, as the present results indicate, personnel turbulence reduces unit effectiveness, the Army will need to make informed decisions on how and how much to reduce turbulence, balancing the estimated readiness gains against the costs of such actions. To guide such decisions, future research efforts on unit NTC performance will need to assess the performance of units who have trained under widely varying levels of turbulence to determine the performance decrement associated with varying levels of turnover at each echelon level.
- **In what positions is turbulence most disruptive?** The results of the present effort indicated that turnover among small unit leaders was more closely associated with lower unit performance than turbulence among service members. This implies that it may be possible to reduce turbulence's effect on performance by keying turbulence reduction efforts to certain positions. If this were possible, the benefits of lower turbulence could be reaped at significantly less cost than efforts to reduce turbulence across all unit positions. Further research will be necessary therefore to identify the unit performance decrement associated with turbulence in various types of positions in different unit types.

### Conclusions

This effort's results have demonstrated the value of research examining the contribution of personnel and training factors to unit tactical performance. Even with the low sensitivity of analyses on a limited sample, this effort identified several potential relationships between units' performance in simulated combat and the personnel and training factors which characterize them at their Home Station. Prominent among these factors are:

- Unit Turnover
- Small Unit Combat Leadership
- Collective Training

For full application in guiding Army decisions and initiatives to improve unit readiness, the present results will need to be verified and extended in the more extensive efforts to follow in the Determinants project.

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# **APPENDIX A**

Sample Home Station Questionnaire

**SURVEY A**  
**SQUAD/CREW MEMBER AND TEAM LEADER**

**INSTRUCTIONS:**

This survey has several sections. Each section contains different types of questions, statements, and responses. Read the instructions carefully in each section before responding to the questions or statements. Then read each question or statement and all of their response choices carefully before selecting an answer. You will be asked to respond in one of three ways:

1. You will be asked to **CIRCLE** the **LETTER** that matches your response choice:

**EXAMPLE**

What is your favorite sport?

- A. Football
- B. Track
- C. Baseball
- D. Basketball
- E. None of the above

If Football is your choice circle the letter **A**.

**OR**

2. You will be asked to place the **LETTER** that matches your response choice in a **BOX** that appears next to the item:

**EXAMPLE**

Football is my favorite sport.

The response choices for this item might be:

- A. STRONGLY AGREE
- B. AGREE
- C. BORDERLINE
- D. DISAGREE
- E. STRONGLY DISAGREE

If you **STRONGLY AGREE** that Football is your favorite sport, indicate your response by placing the letter **A** in the box, i.e.,

**A** Football is my favorite sport.

**OR**

3. You will be asked to **ENTER** your answer on the **LINE** to the left of the question:

**EXAMPLE**

How many football games did you watch on television last weekend?

If you watched 2 football games during the weekend, you would **ENTER** that response on the line, i.e.,

**2** How many football games did you watch on television last weekend?

If you have any questions now, or while you are filling out the survey, please ask for help.

Please turn the page and begin the survey.

Please provide your Rank and Social Security number:

A. NAME: \_\_\_\_\_

B. SOCIAL SECURITY #: \_\_\_\_\_

The first section of this questionnaire provides background information. Please CIRCLE the appropriate letter for items 1-14.

1. What company are you in?

- A. A E. E
- B. B F. HHC
- C. C G. Other
- D. D

2. What platoon are you in?

- A. 1st
- B. 2nd
- C. 3rd
- D. 4th
- E. Anti-Armor
- F. Scout
- G. Mortar
- H. Other: Please Specify \_\_\_\_\_

3. What section are you in? (For anti-armor, mortar, etc. only).

- A. 1st
- B. 2nd
- C. 3rd
- D. Not Applicable

4. What squad or tank are you in?

- A. 1st Squad/Gun Crew
- B. 2nd Squad/Gun Crew
- C. 3rd Squad/Gun Crew
- D. PL's tank
- E. PSG's tank
- F. PL Winger's tank
- G. PSG's wingman's tank
- H. Sect. Ldr.'s vehicle (Anti-Arm. and Scout)
- I. Sqd Ldr's vehicle (Anti-Arm. and Scout)
- J. Other: Please Specify \_\_\_\_\_

5. What is your present duty position?

- A. Team or crew member
- B. Team Leader
- C. Squad Leader
- D. Section Leader
- E. Tank Commander/Crew Leader
- F. Platoon Sergeant
- G. Platoon Leader
- H. First Sergeant
- I. Company Commander

6. What is your highest level of military education?

- A. AIT/OSUT
- B. PLDC
- C. BMOC
- D. ANCOC
- E. Officer Basic Course
- F. Officer Advanced Course

7. Have you been awarded the Expert Infantryman's Badge?

- A. Yes
- B. No

8. What is your most recent Physical Readiness Test (PRT) score?

- A. 100
- B. 200-299
- C. 250-279
- D. 240-259
- E. 220-219
- F. 200-219
- G. 180-199
- H. Less than 180

9. What is your duty MOS?

- A. 11B/N
- B. 11C
- C. 11H
- D. 19D
- E. 19E/R
- F. Officer
- G. Other (Please specify): \_\_\_\_\_

10. How long have you worked with most (75%) of the current members of your squad/crew?

- A. 1-3 Months
- B. 4-6 Months
- C. 7-9 Months
- D. 10-12 Months
- E. More than 12 Months

11. Are you temporarily assigned to this platoon to go to the NTC training exercises?

- A. Yes, (if Yes how many days: \_\_\_\_\_)

- B. No
- C. Don't Know

12. I plan to make a career of the Army.

- A. Definitely Yes
- B. Probably Yes
- C. Undecided
- D. Probably No
- E. Definitely No

13. How many times have you gone to the NTC to train with a unit?

- A. None
- B. 1
- C. 2
- D. 3
- E. 4
- F. 5
- G. 6
- H. 7 +

14. Have you been a member of the OPFOR (Opposing Force) or O/C (Observer/controller) group at the NTC?

- A. No
- B. Yes, a member of the OPFOR only.
- C. Yes, a member of the O/C group only.
- D. Yes, a member of both the OPFOR and O/C group.

For the items below, please enter your response on the line to the left of each item. If your answer is 1 month or less, enter 1 month.

10. How many months have you been in your current grade?

11. How many months have you been in your duty position in this unit as well as in other units?

12. How many months have you been in this platoon?

13. How many months have you been in this company?

14. How many months have you been in this position?

15. How many months have you been in this company?

16. How many months have you been in this position?

17. How many months have you been in this platoon?

18. How many months have you been in this company?

19. On the average, how many hours of sleep do you get each day (night) when not in the field?

This section addresses how well your platoon works together.  
Please provide your responses in the BOXES next to items 20-36  
using the following response scale.

A. STRONGLY AGREE

B. AGREE

C. BORDERLINE

D. DISAGREE

E. STRONGLY DISAGREE

- Response scale for items 31-36:
- A. STRONGLY AGREE  
B. AGREE  
C. BORDERLINE  
D. DISAGREE  
E. STRONGLY DISAGREE
31. Squad/crew members in this platoon know what is expected of them.
32. In this platoon the behaviors that will get you in trouble are well known.
33. Squad/crew members in this platoon feel they play an important part in accomplishing the unit's mission.
34. Squad/crew members are proud to be members of this platoon.
35. Squad/crew members in this platoon feel they are serving their country.
36. Squad/crew members in this platoon have opportunities to better themselves.
- Please CIRCLE appropriate responses in items 37-38.
37. How well do squad/crew members in your platoon work together to get the job done?
- A. Very Well  
B. Well  
C. Borderline  
D. Poorly  
E. Very Poorly
38. How satisfied are the squad/crew members in this platoon with the time available for family, friends and personal needs?
- A. Very Satisfied  
B. Slightly Satisfied  
C. Borderline  
D. Slightly Dissatisfied  
E. Very Dissatisfied
39. Leaders in this platoon have the skills and abilities to lead the platoon into combat.

Please CIRCLE the appropriate response in item 39.

This section deals with soldier and leader attitudes and commitment to the unit. Please provide your responses in the boxes next to numbered items 40-57 using the following response scales:

19. How satisfied are the squad/crew members in this platoon with the unit social events?
- A. Very Satisfied
  - B. Slightly Satisfied
  - C. Borderline
  - D. Slightly Dissatisfied
  - E. Very Dissatisfied

A. STRONGLY AGREE

B. AGREE

C. BORDERLINE

D. DISAGREE

E. STRONGLY DISAGREE

40. This platoon is able to respond to all the requirements put on it in the accomplishment of its mission.
41. The company commander and first sergeant do not improperly interfere in the operation of this platoon.
42. The company provides us with the support we need.
43. If we make a mistake the leaders won't unfairly jump all over us.
44. It is easy to get needed supplies and spare parts.
45. The job I have is a respected one on this post.
46. My platoon is respected on this post.
47. People in our company trust and support each other.
48. Our platoon likes to compete with other platoons.
49. My morale is high.
50. This platoon is prepared to accomplish its mission.

A8

A7

**Response scale for items 51-57:**

- A. STRONGLY AGREE
- B. AGREE
- C. BONDEDLINE
- D. DISAGREE
- E. STRONGLY DISAGREE

This section deals with the training available to you, and your unit as well as how much and what kind of training is performed.

Items 58 through 60 deal with AMOUNT of training. Please provide your responses in the BOXES next to numbered items.

51. The morale in my platoon is high.
52. I often find myself thinking about the next day's work when I am off duty.
53. When performing my job, I work as hard as I possibly can to get the job done.
54. I work toward making the platoon look good.
55. I feel responsible for doing what best serves the mission of the platoon.
56. If we were going into combat and I had my choice, I would like to serve with this platoon rather than with some other platoon.
57. I would prefer to stay with my present platoon to help it accomplish its tasks rather than transfer to another platoon, if given a chance.

**Response scale for items 58-60:**

- A. FAR TOO MUCH
- B. TOO MUCH
- C. ABOUT RIGHT
- D. TOO LITTLE
- E. FAR TOO LITTLE

This section deals with the training available to you, and your unit as well as how much and what kind of training is performed.

Items 58 through 60 deal with AMOUNT of training. Please provide your responses in the BOXES next to numbered items.

**Response scale for items 58-60:**

- A. FAR TOO MUCH
- B. TOO MUCH
- C. ABOUT RIGHT
- D. TOO LITTLE
- E. FAR TOO LITTLE

58. I think the amount of training on individual tasks (common tasks and MOS tasks) is:

59. I think the amount of training on crew-served weapons is:

60. I think the amount of field training on collective (squad/crew, platoon and company) tactical mission tasks is:

Items 61 through 63 deal with QUALITY of training. Please provide your responses in the BOXES next to items.

**Response scale for items 61-63:**

- A. VERY SATISFACTORY
- B. SATISFACTORY
- C. BORDERLINE
- D. UNSATISFACTORY
- E. VERY UNSATISFACTORY

61. I think the quality of training on individual tasks (common tasks and MOS tasks) is:

62. I think the quality of training on crew-served weapons is:

63. I think the quality of field training on collective (squad/crew platoon and company) tactical mission tasks is:

For items 64 through 74, please provide your responses in the boxes next to items.

Response scale for items 64-67:

- A. ALMOST ALWAYS
- B. OFTEN
- C. SOMETIMES
- D. SELDOM
- E. ALMOST NEVER

With regard to Collective Training (training on squad, platoon, company level tasks) please complete items 68-71.

68. During collective training, how often are you told specifically what you are doing right by the:

- Platoon Leader  
 Platoon Sergeant

69. During individual training, how often are you told specifically what you are doing right by the:

- Platoon Leader  
 Platoon Sergeant

70. During individual training, how often are you told specifically what you are doing wrong by the:

- Platoon Leader  
 Platoon Sergeant

71. During individual training, how often are you given an opportunity to actually correct your mistakes and improve?

- Platoon Leader  
 Platoon Sergeant

72. During individual training, how often are you given an opportunity to actually correct your mistakes and improve?

- Platoon Leader  
 Platoon Sergeant

Response scale for items 68-71:

- A. ALMOST ALWAYS
- B. OFTEN
- C. SOMETIMES
- D. SELDOM
- E. ALMOST NEVER

With regard to Collective Training (training on squad, platoon, company level tasks) please complete items 68-71.

68. During collective training, how often are you told specifically what you are doing right by the:

- Platoon Leader  
 Platoon Sergeant

69. During collective training, how often are you told specifically what you are doing wrong by the:

- Platoon Leader  
 Platoon Sergeant

70. During collective training, how often are you given an opportunity to actually correct your mistakes and improve?

- Platoon Leader  
 Platoon Sergeant

71. During collective training, how often are you given an opportunity to actually correct your mistakes and improve?

- Platoon Leader  
 Platoon Sergeant

For General Training Items 72-74, use the following response scale:

- A. ALMOST ALWAYS
- B. OFTEN
- C. SOMETIMES
- D. SELDOM
- E. ALMOST NEVER

72. In general, how often do trainers/instructors appear to be well prepared to conduct good training activities?

73. In general, how often do training aids and materials when conducting appropriate training activities?

74. In general, how often do trainers/instructors do a good job of conducting effective training activities?

Please CIRCLE the appropriate letter for items 75-77.

75. Have you received training or instruction on your unit's sleep plan?

- A. My unit doesn't have a sleep plan that I know of.
- B. Received instruction but have not practiced.
- C. Have practiced sleep plan in field exercises.

76. Have you received any specific guidance on work/rest or sleep plans for RIC?

- A. None
- B. Verbal Guidance
- C. Written Guidance
- D. Both Written and Verbal Guidance

77. When your platoon goes to the field for tactical training, how much of the total time available is spent actually training at the training site, i.e., not travelling, preparing and waiting.

- A. More than 75% of the time
- B. About 75% of the time
- C. About 50% of the time
- D. About 25% of the time
- E. Less than 10% of the time

This section addresses tasks leadership in your platoon. Each item below describes leadership performed by your squad/crew leader, the platoon sergeant and the platoon leader. Please select the response that best describes how often each of those leaders performs the tasks below in the element he leads. Select your response from the following response scale:

- A. ALMOST ALWAYS
- B. OFTEN
- C. SOMETIMES
- D. SELDOM
- E. ALMOST NEVER

Please place your response in the BOX next to each leader.

78. Is Your Crew Leader also your Platoon Leader or your Platoon Sergeant? (Check NO or YES)

NO: If not, then describe all 3 leaders on each item below.

YES: If yes, then do not fill in the crew leader line.

79. Solves work related problems, by suggesting new ways to do the job.

<input type="checkbox"/>	Squad/Crew Leader
<input type="checkbox"/>	Platoon Sergeant
<input type="checkbox"/>	Platoon Leader

80. Checks on his unit's operations, by inspecting unit operations and training.

<input type="checkbox"/>	Squad/Crew Leader
<input type="checkbox"/>	Platoon Sergeant
<input type="checkbox"/>	Platoon Leader

Describe each of your leaders on Item #1-3 using the following response scale:

- A. ALMOST ALWAYS
- B. OFTEN
- C. SOMETIMES
- D. SELDOM
- E. ALMOST NEVER

81. Keeps soldiers informed about what is going on in the unit.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Squad/Crew Leader	Platoon Sergeant	Platoon Leader

82. Stands up for and aids his superiors.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Squad/Crew Leader	Platoon Sergeant	Platoon Leader

83. Makes sure subordinates coordinate their work so that everybody does the right thing at the right time.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Squad/Crew Leader	Platoon Sergeant	Platoon Leader

Response scale for items 84-87 on this page:

- A. ALMOST ALWAYS
- B. OFTEN
- C. SOMETIMES
- D. SELDOM
- E. ALMOST NEVER

84. Makes sure soldiers work together in a friendly and cooperative manner, by encouraging such things as unit activities, unit pride, and harmony in the unit.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Squad/Crew Leader	Platoon Sergeant	Platoon Leader

85. Takes required disciplinary actions, such as on-the-spot corrections or legal actions.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Squad/Crew Leader	Platoon Sergeant	Platoon Leader

86. Shows concern and support for his soldiers by doing such things as getting to know them, visiting them in the hospital and stockade, and acting fairly toward them.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Squad/Crew Leader	Platoon Sergeant	Platoon Leader

87. Consults his subordinates, seeking and making use of their ideas for unit plans and missions.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Squad/Crew Leader	Platoon Sergeant	Platoon Leader

Response scale for items 88-91 on this page:

- A. ALMOST ALWAYS
- B. OFTEN
- C. SOMETIMES
- D. SELDOM
- E. ALMOST NEVER

88. Praises and recognizes effective soldiers, individually and in formation.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Squad/Crew Leader	Platoon Sergeant	Platoon Leader

89. Rewards soldiers with useful benefits and awards, such as passes, and recommendations for time off and promotions.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Squad/Crew Leader	Platoon Sergeant	Platoon Leader

90. Delegates authority to subordinates, and makes them responsible for doing their work.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Squad/Crew Leader	Platoon Sergeant	Platoon Leader

91. Structures and motivates by doing things such as setting goals, keeping track of performance, and by assessing good work.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Squad/Crew Leader	Platoon Sergeant	Platoon Leader

Response scale for items 92-94 on this page:

- A. ALMOST ALWAYS
- B. OFTEN
- C. SOMETIMES
- D. SELDOM
- E. ALMOST NEVER

92. Inspires his soldiers by doing such things as leading PT; sharing field training hardships; showing courage; and maintaining a professional, military bearing.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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93. Handles conflict between unit members by doing things such as stopping soldiers from fighting or arguing, and encouraging them to resolve their conflicts.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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94. Makes it easier to do the work by making sure enough people, equipment, supplies and time are on hand, and by being available to help.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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**Response scale for Items 95-98 on this page:**

- A. ALMOST ALWAYS
- B. OFTEN
- C. SOMETIMES
- D. SELDOM
- E. ALMOST NEVER

95. Counsels soldiers in such areas as career development, and personal and family problems.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Squad/Crew Leader  
Platoon Sergeant  
Platoon Leader

96. Conducts training in field and garrison, and provides necessary coaching.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Squad/Crew Leader  
Platoon Sergeant  
Platoon Leader

97. Clearly informs soldiers of their duties, and responsibilities when a mission or task is assigned as well as during the execution of the mission.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Squad/Crew Leader  
Platoon Sergeant  
Platoon Leader

98. Encourages subordinates to set goals and standards for job performance, appearance, and conduct.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Squad/Crew Leader  
Platoon Sergeant  
Platoon Leader

**Response scale for Items 99-100 on this page:**

- A. ALMOST ALWAYS
- B. OFTEN
- C. SOMETIMES
- D. SELDOM
- E. ALMOST NEVER

99. Makes decisions in a timely and decisive manner on his unit's operations.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Squad/Crew Leader  
Platoon Sergeant  
Platoon Leader

100. Makes adjustments in on-going operations, by making changes to training and operating procedures in order to correct problems.

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------

Squad/Crew Leader  
Platoon Sergeant  
Platoon Leader

**GO ON TO THE NEXT PAGE**

The following items also deal with leadership, but use a different response scale. Please describe each of your leaders using the following response scales:

- A. STRONGLY AGREE
- B. AGREE
- C. NEITHER AGREE NOR DISAGREE
- D. DISAGREE
- E. STRONGLY DISAGREE

Response scale for items 105-106: A. STRONGLY AGREE      B. AGREE      C. NEITHER AGREE NOR DISAGREE      D. DISAGREE      E. STRONGLY DISAGREE

101. Shows a high level of technical and tactical skills with unit weapons, vehicles, and equipment; and knows how best to employ his unit in the field.

Squad/Crew Leader	<input type="checkbox"/>	<input type="checkbox"/>
Platoon Sergeant	<input type="checkbox"/>	<input type="checkbox"/>
Platoon Leader	<input type="checkbox"/>	<input type="checkbox"/>

102. Acts in a professional and ethical manner; can be trusted; will not give false reports; and will not allow rules to be broken.

Squad/Crew Leader	<input type="checkbox"/>	<input type="checkbox"/>
Platoon Sergeant	<input type="checkbox"/>	<input type="checkbox"/>
Platoon Leader	<input type="checkbox"/>	<input type="checkbox"/>

103. Makes his soldiers want to do a good job.

Squad/Crew Leader	<input type="checkbox"/>	<input type="checkbox"/>
Platoon Sergeant	<input type="checkbox"/>	<input type="checkbox"/>
Platoon Leader	<input type="checkbox"/>	<input type="checkbox"/>

104. Provides clear directions and goals to his soldiers.

Squad/Crew Leader	<input type="checkbox"/>	<input type="checkbox"/>
Platoon Sergeant	<input type="checkbox"/>	<input type="checkbox"/>
Platoon Leader	<input type="checkbox"/>	<input type="checkbox"/>

THANK YOU FOR YOUR TIME IN FILLING OUT THIS SURVEY!